S. HRG. 98-539

FEDERAL AVIATION ADMINISTRATION'S FACILITY CONSOLIDATION REPORT

HEARING

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

FIRST SESSION

SPECIAL HEARING

Printed for the use of the Committee on Appropriations

U.S. GOVERNMENT PRINTING OFFICE

28-592 O WASHINGTON : 1984

S181-22

COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON TRANSPORTATION AND RELATED AGENCIES

MARK ANDREWS, North Dakota, *Chairman*

THAD COCHRAN, Mississippi
JAMES ABDNOR, South Dakota
ROBERT W. KASTEN, JR., Wisconsin
ALFONSE M. D'AMATO, New York
MARK O. HATFIELD, Oregon
ex officio

LAWTON CHILES, Florida
JOHN C. STENNIS, Mississippi
ROBERT C. BYRD, West Virginia
THOMAS F. EAGLETON, Missouri

Professional Staff
PATRICIA C. TUSAIE
PATRICK J. MCCANN
J. MICHAEL HALL (Minority)

Administrative Support
MAZIE R. MATTSON

CONTENTS

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

	Page
Hon. Mark Andrews, U.S. Senator from North Dakota, opening statement	1
Hon. Lawton Chiles, U.S. Senator from Florida, prepared statement	2
Hon. John C. Stennis, U.S. Senator from Mississippi, prepared statement	2
Hon. Alfonse D'Amato, U.S. Senator from New York, prepared statement	3
Hon. Mark O. Hatfield, U.S. Senator from Oregon, prepared statement	5
Donald A. Derman, Assistant Secretary for Budget and Programs, Office of the Secretary, Department of Transportation, opening statement	8
Submitted questions	37

MATERIAL SUBMITTED SUBSEQUENT TO HEARING

Paul E. Stewart, Benedum Airport Authority, letter from	84
John I. Tominack, Ohio County (W. Va.) Commission, letter from	85
Robert A. Miller, professional air traffic controller, letters from	86
John W. Bowers, Clarksburg, W. Va., tower, letter from	90
Hon. Dennis DeConcini, U.S. Senator from Arizona, letter from	92
Hon. Jennings Randolph, U.S. Senator from West Virginia, prepared statement	93
Hon. Malcom Wallop and Hon. Alan K. Simpson, U.S. Senators from Wyoming, prepared statement	94
Harry J. Duke, Jr., president and executive director, National Association of Air Traffic Specialists, prepared statement	96
Stephen L. Keleti, U.S. General Accounting Office, letter from	103
John H. Winant, president, National Business Aircraft Association, Inc., prepared statement	106
W. Lawrence Graves, vice president, Aircraft Owners and Pilots Association, letter from	110
Juanita D. Blumberg, vice president, Central Florida General Aviation Association, prepared statement	113

FEDERAL AVIATION ADMINISTRATION'S FACILITY CONSOLIDATION REPORT

TUESDAY, NOVEMBER 1, 1983

U.S. SENATE,
SUBCOMMITTEE ON TRANSPORTATION AND RELATED AGENCIES,
COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10 a.m., in room SD–124, Dirksen Senate Office Building, Hon. Mark Andrews (chairman) presiding.

Present: Senators Andrews, Chiles, Byrd, and Eagleton.

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

STATEMENT OF DONALD A. DERMAN, ASSISTANT SECRETARY FOR BUDGET AND PROGRAMS, OFFICE OF THE SECRETARY, DEPARTMENT OF TRANSPORTATION

ACCOMPANIED BY:

MICHAEL J. FENELLO, DEPUTY ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION
GARLAND P. CASTLEBERRY, DIRECTOR, SPECIAL PROJECTS STAFF, OFFICE OF ADMINISTRATOR
CHARLES BURWICK, ASSISTANT MANAGER, SYSTEMS PROGRAM DIVISION, AIR TRAFFIC SERVICE
BROOKS C. GOLDMAN, DIRECTOR, MANAGEMENT SYSTEMS
FRED GILMORE, DIRECTOR, ACQUISITION AND MATERIEL SERVICE
MARTIN T. POZESKY, DIRECTOR, PROGRAM ENGINEERING AND MAINTENANCE SERVICE
PAUL K. BOHR, DIRECTOR, GREAT LAKES REGION
HARVEY B. SAFEER, DIRECTOR, AVIATION POLICY AND PLANS

OPENING STATEMENT

Senator ANDREWS. The subcommittee will come to order.

Today the Subcommittee on Transportation will hear from Department of Transportation witnesses regarding the Federal Aviation Administration's facility consolidation report. This report was required by section 319 of Public Law 98–78, the fiscal year 1984 transportation appropriations. Section 319 says, in part:

None of the funds in this or any other act shall be used by the Federal Aviation Administration for any facility closures or consolidations prior to December 1, 1983: provided, That the Federal Aviation Administration shall, no later than October 1, 1983, submit to the appropriate committees of the Congress a detailed, site-specific,

and time-phased plan, including cost-effectiveness and other relevant data, for all facility closure or consolidations over the next 3 years.

Copies of the report were distributed to members earlier in the month.

Our witnesses today are Donald A. Derman, Assistant Secretary for Budget and Programs, and Michael J. Fenello, Federal Aviation Administration Deputy Administrator.

Please feel free to summarize any opening statements you have for the subcommittee. The full text, of course, will appear for the record.

Before we begin, Senator Eagleton, do you have any statement?

Senator EAGLETON. I have no statement, Mr. Chairman. I do have questions for Mr. Fenello.

[Opening statements of Senators Chiles, Stennis, D'Amato, and Chairman Hatfield:]

STATEMENT OF HON. LAWTON CHILES, U.S. SENATOR FROM FLORIDA

I would like to join Senator Andrews in welcoming Mr. Fenello, the Deputy Administrator at the Federal Aviation Administration, and Mr. Don Derman, the Assistant Secretary for Budget and Programs, to our hearings.

The FAA facility consolidation proposal when fully implemented in 1993 will result in savings of over $250 million and reductions of approximately 630 positions. Involved are 252 FAA facilities in 43 States, 172 congressional districts, and Puerto Rico. In fact, the only States not affected by this proposal are Alabama, Connecticut, Massachusetts, Maine, Rhode Island, South Dakota, and Vermont. Because this proposal has such a widespread impact, Senator Andrews and I hope to deal with it as a package instead of on a case-by-case basis.

On October 5, Senator Andrews and I sent around a notice to the other members of the subcommittee, and I believe all of those interested offices have now had a chance to learn about the proposal. Also, on October 21, Senator Andrews placed a statement in the record giving notice of these hearings to all Members of the Senate. Section 319 of our 1984 appropriations bill gives us the capability to substantially delay any of the actions proposed in this plan if we determine that to be the correct course of action.

In general, I would like to commend the FAA for pursuing these consolidations. It seems to me that modern technology should permit us to operate more efficiently. On the other hand, I do have some concerns that I hope to have addressed by this hearing.

Again, I would like to welcome the witnesses to the hearing, and I look forward to hearing their statements.

STATEMENT OF HON. JOHN C. STENNIS, U.S. SENATOR FROM MISSISSIPPI

Mr. Chairman, we are holding this hearing today to discuss something which you and I have publicly agreed on as an item of major importance. That is our air transportation system.

When the Administrator of the Federal Aviation Administration, Mr. Lynn Helms, testified before this subcommittee in the spring, I was happy to compliment him on the good job he has done, especially his handling of the air traffic controllers strike in August 1981. Now I am glad to have this report and to know that the Federal Aviation Administration is moving toward shaping up our air transportation system and making it more effective and efficient. However, I do have some questions about the procedure that will be used to accomplish this goal.

In asking these questions, I will use as a reference a Federal Aviation Administration facility in my State which has been mentioned in this report. The Greenville, Miss., Airport has on its premises an airport traffic control tower which the Federal Aviation Administration operated prior to the air traffic controllers strike in 1981. At that time, this tower along with many others towers around the Nation, was closed temporarily.

Now this report has come out which shows that the tower is scheduled for closing in 1986. Further, the report states that additional studies are ongoing to see if the tower should be reopened prior to 1986.

I shall have further questions on this and other issues to be answered for the record.

STATEMENT OF HON. ALFONSE D'AMATO, U.S. SENATOR FROM NEW YORK

Mr. Chairman, I commend you on holding this hearing today regarding facility consolidations planned by the Federal Aviation Administration (FAA). As you know, this is an area of great concern to me. I am pleased the subcommittee is making an early examination of planned consolidations and closures of FAA facilities so that relevant concerns may be addressed prior to the taking of any irreversible steps by the FAA.

The FAA has submitted its plan for consolidation of facilities during 1984–86 pursuant to section 319 of the fiscal year 1984 Transportation Appropriations Act. This section required the FAA Administrator to submit to the appropriate committees of Congress a detailed, site-specific, and time-phased plan, including cost-effectiveness and other relevant data, for all consolidations over the next 3 years. The precedent for this provision was established in the fiscal year 1983 Transportation Appropriations Act, which prohibited the FAA Administrator from undertaking any reorganization of the regional office structure without the prior approval of both the House and Senate Appropriations Committees.

Copies of the FAA report have been made available to the House and Senate Transportation Appropriations Subcommittees and to the authorizing committees. The section 319 requirement was originally put in the Senate bill to avert the problem of having to address facility closures on a case-by-case basis. It was also intended to provide Congress with the full breadth of FAA consolidation plans and verifiable cost savings, based on sound objective data.

The two volume report lists the proposed fiscal years 1984–86 facility consolidations, including flight service stations and towers. The FAA report states that the entire package represents savings of $250 million and is an integral part of the national airspace system plan. I agree that it is certainly a crucial element of the overall plan. For that reason, it is tremendously important that Congress be able to review such plans. This report is a useful tool which aids Congress in assessing the impact of facility consolidations and closures. It provides a healthy and open working relationship between Congress and the FAA and will lead to the development and implementation of the most workable and beneficial proposals.

While the FAA's plan does not contemplate any relocation of the FAA regional headquarters in Jamaica, N.Y., at JFK Airport, it does address airways facilities sector offices elsewhere in New York State. These offices are responsible for a maintenance and certification program to assure the continued operations, accuracy, and reliability of all air traffic control, air navigation, communication facilities, and ancillary equipment within their sector.

According to a chart included in the record, C–33, one airways facilities sector office will be opened in Syracuse in 1984, gaining eight positions. The report stresses that positions are not the same thing as employees, since some positions are currently vacant. The offices in Buffalo and in Albany will be realined in 1984. This means that some of the activities performed in these offices will be moved, but the offices will not be closed. The chart indicates this will mean a reduction of six positions in each of these locations.

Automated flight service stations (AFSS) and flight service stations (FSS) in New York are also impacted. Flight service stations offer a broad range of preflight and in-flight services, primarily aimed at general aviation (nonairline) pilots. Services include preflight weather briefings for pilots, accepting and closing flight plans, providing en-route communications, and assisting pilots in distress. The FAA intends to modernize the stations with computer equipment, which allows pilots to obtain many services by dialing in information. The FAA will eventually reduce the number of FSS's from 317 to 61. Over the next 3 years, FSS's will be consolidated into 37 AFSS's. The locations for the 104 AFSS's will be determined by a process in which communities will bid for the stations and the best bids will be chosen.

On Long Island, Islip has been selected for an AFSS to be opened in 1985 with 23 positions. At the same time, the Poughkeepsie FSS will be consolidated and its 23 positions will be moved to Islip. Another AFSS is scheduled to open in 1986, but its location has not yet been chosen. The FAA states that it will be in western New York or western Pennsylvania and one FSS will be closed. The actual location is to be determined by the end of fiscal year 1984. The chart (C-33) also shows consolidation of the FSS's in Buffalo and Elmira, but the FAA has not yet determined in what year this will happen. Whether both are consolidated will depend upon the location selected for the western New York/western Pennsylvania automated station. Possible locations for the automated station include Buffalo and Elmira, N.Y., and Bradford, Dubois, Pa., and Erie, Pa., as well as any other communities that decide to apply.

It is my understanding that in 1987 and years following, which are not the subject of the FAA's required report, the FAA will examine the facilities located in northeastern New York in communities such as Massena and Glens Falls.

Again, I commend Senator Andrews, chairman of this subcommittee, and my distinguished colleague for holding this hearing. This is a worthwhile process which I hope will eventually be extended to facility consolidations occurring after 1986, so that we may continue to be apprised of significant activities planned by the FAA in the future.

STATEMENT OF HON. MARK O. HATFIELD, U.S. SENATOR FROM OREGON

Mr. Chairman. I appreciate the opportunity today to hear testimony from the Federal Aviation Administration (FAA) regarding proposed closures and consolidations of FAA facilities. Many of these proposed changes have been contemplated for sometime, but with much uncertainty regarding when they might take affect. The FAA report has at least laid out before the Congress a time frame for when these actions are to take place.

In reviewing the FAA report, I think it is important to keep in mind both safety and the efficiency of operation. As these closures and consolidations occur FAA personnel will no longer be dispersed throughout the nation's communities, but will be concentrated in a few centralized locations. The stated goal of the FAA is efficiency and maximixing limited available federal dollars. However, I have a very great concern over the impact of these changes on the safety of general aviation.

No where is this most on my mind than in eastern Oregon. At the present time, the FAA is contemplating the closure of three flight service stations and an air traffic control tower in that area of the State of Oregon. The net effect will be the removal of all FAA facilities in that region. Needless to say, this is an area that is significantly different from western Oregon in topography, weather and population served. I am extremely skeptical of the ability of the FAA to service this area from locations in western Oregon. In addition, I am doubtful that the automated flight service station will be able to provide the kind of weather and topographical information that is needed to assist the general aviation community in eastern

Oregon. I would strongly suggest that the FAA consider retaining some flight service facility in that portion of the State.

With regard to efficiency, the FAA proposes to close the general aviation district office (GADO) in Eugene and transfer personnel to either Portland or to a new satellite office to be located in Medford. So far, this change has been justified on the grounds that there is a greater concentration of workload functions in that area, that inspectors from Portland can adequately cover the Eugene/ Salem area, and that Medford is more centrally located.

Information provided to me by the FAA and the State of Oregon indicate that there is no appreciable difference between locating an office in Eugene or Medford. At the present time, the Eugene GADO services the entire southern portion of the State. A total of 3,029 pilots and 1,740 aircraft are registered in that section. Annual operations from the various airports within the region total approximately 711,550. This information, when broken down by county, shows that there is roughly an even distribution of pilots, aircraft and operations in the counties surrounding Eugene and those surrounding Medford. I might add in this regard, that Eugene also receives a considerable amount of work from the Salem area which presently is within the Portland office region. This is due to the fact that the Eugene office is more convenient, more accessable and has demonstrated itself to be highly efficient.

In justifying the move to Medford, FAA indicated that cost was not a factor. The FAA has stated that the cost would be approximately the same whether two inspectors were located

in Medford or Eugene. However, the information that I received from the FAA indicates that there will be increased travel time and costs under this proposal than presently exists. In addition, the one time cost for the transfer of people and equipment totals over $70,000. Therefore, it will be more expensive to move the office to Medford than to retain the present office in Eugene.

Lastly, it seems to make little sense to create a new satellite office in Medford when there is already an office in Eugene. The office in Eugene has been there for over a decade after being transferred by the FAA from Medford in 1969. The general aviation community has adapted to the presence of the office in Eugene, the office has a fine working relationship with Lane Community College, which currently offers excellent programs in flight technology training and aviation maintenance, and the retention of the office in Eugene would enable existing personnel to stay put rather than be transferred to a new location. I would suggest that it would be a better idea to retain two inspectors in Eugene and perhaps transfer one or two inspectors from Portland to be located in that office, than to create a new office in Medford in the southern-most portion of the State which would result in increased cost to the FAA and less service to central and southern Oregon.

I might add that I am a bit troubled by information that I have recently received that the FAA has taken no action in response to the direction of the Senate Appropriations Committee to reopen the air traffic control tower in Pendleton, Oregon. The information that I received is that the FAA has not established a timetable for opening the tower and is contemplating the closure of that tower during the current fiscal year under the proposal before the Committee today. While that airport does not meet the standards

established by the FAA, it is extremely important because of the criss-crossing nature of the runways, the divergent uses of the airport, the variable weather and barometric pressure of the area. I would hope that the FAA would comply with the Senate report language in the very near future.

Once again, I want to express my thanks to Senator Andrews for holding this hearing and allowing the Members of the Committee to discuss this proposal with Representatives from the Federal Aviation Administration. As is evident by my statement, I am not satisfied with the direction of this proposal as it pertains to the State of Oregon. Of foremost concern to me are the potential safety problems that would arise in Oregon due to the proposed removal of Flight Service Stations from eastern Oregon and the unjustified suggestion to create a satellite office in Medford when there is already a functioning existing office in Eugene. I would hope that the FAA would consider my suggestions for changes in this proposal and act accordingly.

OPENING STATEMENT

Senator ANDREWS. You may begin, gentlemen.

Mr. DERMAN. Thank you, Mr. Chairman.

I welcome the opportunity to discuss FAA's consolidation plans with you today. I am accompanied by FAA Deputy Administrator Michael Fenello and several of his key associates, who will be able to answer questions dealing with technical aviation issues.

With your permission, I would like to introduce them by name.

Michael Fenello, of course, is Deputy Administrator of the Federal Aviation Administration; to his right, Mr. Garland B. Castleberry, Director of the Special Projects Staff and Project Manager for the consolidation report in the Office of the FAA Administrator; Charles Burwick, Assistant Manager, Systems Program Division, Air Traffic Service; to my left is Brooks C. Goldman, Director, Management Systems, FAA; Fred Gilmore, Director, Acquisition and Materiel Service; and Martin Pozesky, Director of Program Engineering and Maintenance Service.

We also have with us this morning Paul K. Bohr, Director of the Great Lakes region.

The subcommittee has been provided copies of the detailed reports, prepared at your request, of the FAA's plans for consolidating offices

and facilities in fiscal years 1984 through 1986. Therefore, my prepared statement will be brief.

As you know, Secretary Dole fully supports FAA's efforts to rebuild and modernize our Nation's airway system over the next two decades. We are committed to implementation of the national airspace system (NAS) plan which was set in motion last year, and we consider this effort vital to maintaining the safety and efficiency of aviation into the next century.

We are determined, however, to see that this project achieves the maximum net benefit to the public by taking advantage of cost-saving opportunities wherever possible. In replacing outdated equipment with today's successful technology, we expect to see large increases in productivity and more economical air traffic operations. But, as an August 1983 CBO report stated:

> The cost effectiveness of the NAS plan . . . depends on organizational changes in the FAA, including a consolidation of facilities and a reduction in staff. Failure to follow through with these changes could result in investment costs that exceed benefit.

FAA has taken a careful look throughout the country at offices and facilities which can be restructured, consolidated with others, or eliminated if the demand for services no longer exists. Their review has identified 252 facilities where action should be taken through the end of fiscal year 1986. They are proposing the expansion of 24 existing facilities, the opening of 41 new facilities, the reduction of 15 facilities, and the closing of 172 facilities. The bulk of the closures are proposed for flight service stations, which will ultimately be reduced from over 300 labor-intensive facilities to 61 highly automated ones.

Our analysis shows that the 3-year consolidation program presented to you on October 1 will save or avoid $250 million in taxpayer expense by fiscal year 1993 through work force reductions, smaller physical plant, and other related factors. I am sure the members of the subcommittee will agree with me that these savings and productivity improvements, which both FAA and CBO have documented, should be achieved. There is no question in my mind of our mutual commitment to that objective; nor is there a question in my mind that we must continue to work diligently and cooperatively if that critical objective is to be attained.

Given the sensitive nature of facility consolidations, we particularly appreciate the funding commitment and support given us by this subcommittee over the last several years as we have pursued this necessary program. It is now critical that the members of this subcommittee assist in seeing that our consolidation plan is considered as a whole, not as individual pieces. The objectives of improving our existing system and reducing the cost to the taxpayers are simply too important to be overcome by the fragmentation of our overall plan. Therefore, I see your continued support in working with us to reduce the burden on the taxpayer in a manner which promotes safety and efficiency in our air transportation system.

That completes my prepared statement, Mr. Chairman. My colleagues and I will be pleased to respond to any questions you may have at this time.

Senator CHILES. Thank you.

COMPATIBILITY WITH NAS PLAN

Senator ANDREWS. You mentioned you have an interest in seeing the consolidation plan considered as a whole and not as individual pieces. We are interested in the very same thing, but we look at it, of course, as individual examples of how you are applying these general ground rules.

Mr. Helms testified last April that even if we did not consolidate a single facility, we would still have to go forward with a national airspace system plan.

Your October consolidation report links consolidations to the NAS plan. What is the relationship? Are we only talking about money to be saved or are we talking about an integrated policy to upgrade the Nation's aviation system?

Mr. DERMAN. I believe, Mr. Chairman, it is fair to say that we are trying to do the latter. It is an integrated policy to upgrade the Nation's aviation system.

This consolidation report before you is compatible with the national airspace system plan and over the period of time that the proposed savings to the taxpayer are included the NAS plan also will be going through its implementation phase.

Mr. FENELLO. Mr. Chairman and members of the subcommittee, to follow up on that, I agree that they are compatible; they are interrelated.

They can go forward independent of each other, but if we are to obtain maximum benfits, both in service to the flying public and economically, as you mentioned in your remarks, the synergism that comes from working them together produces greater benefits in both areas, financially and in services.

SYSTEMS INTEGRATION CONTRACTOR

Senator ANDREWS. The NAS plan represents one of the most significant domestic investments since the space program. We are talking about billions of dollars.

When will FAA have, as does the Defense Department, a systems integration contractor to coordinate the hundreds of individual projects and respond coherently as delays and adjustments cause repercussions throughout the system?

Mr. FENELLO. We expect the systems integration contractor to be selected in February of this coming year.

Senator ANDREWS. He will be on board in time to bring order out of the chaos?

Mr. FENELLO. He will be on board in time to supervise the total plan, sir.

AVAILABILITY OF NEW SYSTEM

Senator ANDREWS. Your consolidation plan envisions the closure of 104 flight service stations before the delivery and testing of any automated equipment. This looks like putting the cart before the horse, as the recurring story goes.

FAA has been told repeatedly by Congress not to close flight service stations before they establish improved automated facilities. Why is FAA proceeding in this fashion and how can you assure equal or better services to the flying public if you are not putting the new system into place before you are butchering the old system?

Mr. FENELLO. That is a fair question.

Senator ANDREWS. Sure it is a fair question. I only ask fair questions.

Mr. FENELLO. I will ask Marty Pozesky to give you some detail on that.

Mr. POZESKY. Mr. Chairman, we expect to do two major things to fill the gap between the availability of the new automation system. We know the automation system has had some technical problems. There have been delays, but it is now back on track.

In the interim we expect to lease from Western Union a computer capability which we call lease service A. It is a capability which is now operational in many of our flight service stations and it is used widely, for example, in the State of Alaska that I am familiar with.

It will automate many of the paperwork functions of the existing manual flight service stations and give to the specialist the ability to get directly into our computers at Kansas City where they can get up-to-date flight information.

That capability will be available, will be a step toward the fully automated system, and will, in our testing thus far and our experience thus far, provide the bridge you need between those two points.

Senator ANDREWS. Now, the FAA Administrator testified on April 6 of this year that the hardware contract had been let for modernization equipment and the first delivery would be in January 1984, the first delivery. What is the current status?

Mr. POZESKY. The current status of the program is that the hardware contract and software contract have indeed been let. We have gone through several internal milestones in the program.

The first delivery of the model I equipment to the FAA Technical Center is scheduled for the summer of this year, July 1984.

The first delivery to an operational site is scheduled for October 1984.

Senator ANDREWS. You have already slipped 6 months?

Mr. POZESKY. That does represent another further delay, Mr. Chairman.

Senator ANDREWS. Now, what percent is going to be, did you say, in operation by October 1984?

Mr. POZESKY. The first operational system will be implemented in October 1984.

Senator ANDREWS. You are going to deliver it in July 1984, you are going to have the first system into effect by October 1984. When is the total system going to be up and running?

Because what you are planning to do is shut down individual facets across the country. So, we are talking about when are you going to get the total system going?

Mr. POZESKY. It is a little hard to answer because the system comes in several phases. There are several levels of capability. The first major new increment of capability, which is what we call the model I facility, is expected to be fully operational across the country by late 1985.

Senator ANDREWS. So, you are going to have it going by mid-1986?

Mr. POZESKY. Late 1985 for the model I facilities. Then we go back in and retrofit those, upgrade those facilities even further.

Senator ANDREWS. So, you are shutting down the old system in mid-1984 and putting the new one somewhat on line in late 1985?

Mr. POZESKY. We have an interim approach. Let me comment on two facets.

Senator ANDREWS. It looks like we are flying on a wing and a prayer for 18 months.

INTERIM MEASURES

Mr. POZESKY. Let me comment on two facets.

First of all, the old system is being consolidated, so there will be no loss in services during that so-called shutdown period. The services that we will provide from our new location will be equal to, as the legislation says——

Senator ANDREWS. I thought the scenario was that the new system was going to allow the consolidation of the old system. Now you are saying that the consolidation of the old system can be accomplished without any support from the new system.

Mr. POZESKY. No, sir. The new system is going to provide the additional weather information, the additional flight plan information, the additional pilot services to capture the full demand for the flight service station to the end of the century, really.

What we are saying is that to cover this time period between the first consolidation and delivery of the first model I system, we will take this interim step which we call lease service A and lease from Western Union Co. a computer capability to cover during that interim step as we move into that consolidation.

FSS SPECIALIST TRAINING

Senator ANDREWS. That is wonderful, that Western Union computer capability out there, but many of the personnel at the 317 current FSS's have intimate knowledge of the geography in that area that is essential for the job to be performed adequately.

On page 2 you state:

> Once consolidation occurs, this knowledge will not be lost because the specialist at the new facility will receive in-depth training.

What type of training do you plan and how long will it take the specialist to assimilate the unique topographic specifics of the larger geographic area and how are you going to certify that these specialists have adequate knowledge of the area of geography?

Mr. POZESKY. Let me ask Mr. Burwick from our Air Traffic Service to address that question.

Mr. BURWICK. Mr. Chairman, there will be a period of time just prior to the commissioning of the new facility when training programs will be put together for the specialists.

That will be a concerted effort, with cooperation among the facilities, that will be consolidated into the one facility, to put together the various testing plans and training plans for the people to become familiar with their total flight plan area. I don't recall specifically what the actual training periods will be. We can provide that for the record.

Senator ANDREWS. I would appreciate it if you would get that information.

[The information follows:]

FACILITY RATING/CERTIFICATION

Facility rating/certification in the AFSS will require qualification on certain operational functions and knowledge which will be unique to the individual AFSS. Each specialist will be afforded a maximum of 80 hours of duty time to complete a self-study program using materials furnished by FAA. Upon completion of that study program, each specialist will take a formal written exam and, upon receiving a passing mark, will be certified to that effect. The specialist will also be required to demonstrate practical application of this knowledge as they are certified on the various operational positions within the AFSS.

Each FSS specialist is presently required to be familiar with the flight service area assigned to that facility to adequately provide briefing and flight planning service. This knowledge includes, but is not limited to, major topographical features, navigational aids, airways, airports, mileages, preferred routes, restricted areas, and weather conditions peculiar to the area. The flight service area normally lies within a 400-mile radius of the facility. In addition, the specialist must be familiar with the first 100-mile radius of the flight service area well enough to orient aircraft by landmarks.

Although these existing requirements will be modified somewhat to adapt to the new AFSS flight plan area, it can be seen that the specialist is required today to have considerable knowledge and familiarity with the area in question.

Senator ANDREWS. You are not only going to do that, you are going to have to train these pilots.

When I was growing up there was a young woman from Minnesota who was Miss America, Bebe Schott. Some of you who are old might remember Bebe Schott. She played on a xylophone. She could hit all the different keys.

Senator EAGLETON. With her feet? [Laughter.]

Senator ANDREWS. No, with her hands.

I understand that you now are going to require a pilot filing a flight plan to push a touch-tone dial approximately 100 strokes. He is going to have to be darned talented if he can orchestrate a hundred different dillies on that little touch-tone thing before he can take off.

Is this true? Are we going to have a big training program for pilots so that they can become versatile on the touch-tone keyboard or what?

Mr. POZESKY. That number of 100 strokes was a number which was derived from one of our test programs in which we simulated probably the worst-case scenario that we could ever imagine.

In fact, there were 100 touch-tone key strokes involved in that scenario. Let me assure you that the average number of key strokes in filing a flight plan will be more in the neighborhood of 40 to 50.

Senator ANDREWS. He has to be a limited virtuoso then?

Mr. POZESKY. Yes, sir. When you compare that to the number you need for a telephone call or something, it is not great. In fact, our simulation has not, in reality, proven to be a pilot problem.

We have done a lot of testing with pilots using and simulating various kinds of touch-tone input capabilities to gain access to the flight service station. It has not been a problem. They have been very willing to use the capability and thus far are fairly comfortable. We have had a number of pilot questionnaires that attest to that fact.

In the VRS system in Washington, which is operational right now, you require touch-tone input to get to where the capabilities are. That has been strongly supported by the pilots.

So, the number sounds large and I understand, but it is not, in reality, turning out to be a problem.

DISCONTINUANCE CRITERIA

Senator ANDREWS. I am sure my colleagues will have a number of questions on these subjects that they follow up on. I have some that I will include for the record, but let me ask three questions on the aircraft control towers before I turn to my colleagues.

With regard to tower discontinuance criteria, can you explain the difference between the criteria you are now using and previous criteria? Under the old criteria, more locations would have been candidates for establishment of towers and fewer towers would be candidates for discontinuance. Did you change the criteria because you felt the safety needs could be met with changed criteria or because you were looking for some bucks to save?

You know, the first criteria came up sometime ago and it established a number of towers based on safety needs. Now suddenly you throw that one out and you are saving some more money, but I am wondering if you are also throwing out safety.

Mr. FENELLO. Let me introduce Harvey Safeer who can answer that question.

Mr. SAFEER. Thank you, Mr. Chairman.

The new tower criteria were based on the same types of analysis as the old. We looked at the accident statistics from the National Transportation Safety Board. We did considerable analysis of what we consider to be tower-preventable accidents.

We looked at the economic values of preventing accidents, such as preventing airplanes from landing with their gear up or midair collisions. We had the benefit of 5 more years of NTSB data. We had the benefit of more current economic values for the aircraft.

Furthermore, we had the benefit of better techniques of statistical analysis. We used the same concept of economic criteria as we used for the previous tower benefits to arrive at the new criteria. There was not a prior attempt to either increase the number of discontinuances or decrease the number of eligibilities.

Senator ANDREWS. Who continues those tower functions once FAA discontinues a tower?

Mr. FENELLO. First of all, Mr. Chairman, we should recognize there are 12,000 airports in this country that exist today without towers and approximately 432 out there, of course, that do have towers, and roughly that same number that are providing tower services for air carrier operations.

As you know, we have one or two towers right now that are in a test phase where the Government, as provided by the Congress, is financing a service to a community.

In addition, there are many towers out there—and I don't know the exact number—that are being covered by contract services. These are tower operators who meet the same requirements, the same training requirements, that our FAA controllers do.

So, you can say that the services provided by the FAA or provided by contract operators under a variety of schemes provide the same level of service.

AIRPORT ADVISORY SERVICES

Senator ANDREWS. Do you intend for flight service station personnel to pick up with landing and takeoff information? Have you put in place new procedures to be followed by these FSS personnel? Have you factored the increased cost in your tower savings estimates and what happens when those flight service station personnel are consolidated?

Mr. BURWICK. We have a present procedure in effect within the flight service stations today where they provide airport advisory services. They are located at the airport. They provide that type of service whenever the tower is closed.

Senator ANDREWS. Sure, as substitute for the tower, but how many of these FSS's which are supposed to pick up some of these tower responsibilities will be eventually consolidated or closed once a decision is made on the site of the automated FSS?

Mr. BURWICK. Many of the flight service stations, of course, will be closed. However, there are procedures that are in effect which are to be followed that aircraft can use whenever they are coming into an airport that is not presently provided with FSS or tower locations. Also, the radio communications that are located at that airport must continue to be there so that the pilot will still have someone to talk to for the other kind of information.

Senator ANDREWS. Except that somebody will not be anywhere around. When a tower is closed, what system will be left in place to aid pilots in distress?

Mr. BURWICK. The radio communications that are at that location will remain in place. We have some locations such as when a tower is there and they close, during the hours that they are closed the tower frequency remains in operation and the pilots can call those locations and use the self-announce system, in effect keeping each other advised of their specific locations coming in, through, and out of an airport. It is a procedure that is used widely in the system today and used safely and effectively.

Senator ANDREWS. How many current operating towers which are scheduled for decommissioning in your consolidation report have regularly scheduled major air carrier service?

Mr. BURWICK. It is approximately 20.

Senator ANDREWS. Can you list them for the record?

Mr. BURWICK. Yes; specifically, it is 21

Senator ANDREWS. Will you list them for the record?

Mr. BURWICK. Yes.

[The information follows:]

The following airports with towers identified as closure candidates had reported air carrier operations for fiscal year 1981.

Number of carrier operations for 12-month prestrike—August 1980–July 1981

Location	
Athens, Ga.[1]	584
Brunswick, Ga.[1]	201
Valdosta, Ga.[1]	2,071
Idaho Falls, Idaho	5,074
Marion, Ill.[1]	1,222
Paducah, Ky.[1]	766
Alexandria, La	2,920
Benton Harbor, Mich.[1]	2,604
Jackson, Mich	[2] 2,798
Cape Girardeau, Mo.[1]	619
Columbia, Mo	3,964
Joplin, Mo	5,266
Greenville, Miss.[1]	2,426
Hickory, N.C.[1]	480
Kinston, N.C	3,795
Minot, N. Dak	2,135
Lebanon, N.H	6,807
Hobbs, N. Mex.[1]	2,881
Pendleton, Oreg.[1]	1,380
Florence, S.C	[2] 2,304
Laredo, Tex.[1]	990
Olympia, Wash	[2] 611
Lewisburg, W. Va.[1]	2,515

[1] Closed.
[2] No air carrier in fiscal year 1982.

TOWERS SCHEDULED FOR DECOMMISSIONING

Senator ANDREWS. How many of these current operating towers scheduled for decommissioning now have regular military operations?

Mr. BURWICK. All of them have at least one military operation throughout the year.

Senator ANDREWS. Earlier you said that this was a national situation and you suggest we look at it from a national standpoint. I will do that.

Given the difference in speeds between a DC–9 or 727 coming into an airport and a Cessna or a Piper Cub, how can you justify pulling from the airports that now have regularly scheduled major airline services, tower operations in that mix of airplanes?

I grant you if you have a criteria of *x* thousand flights and they are relatively compatible airplanes, fine. Maybe they can get along without a tower. Maybe that is why a lot of these places don't have towers.

But if an airport is major enough to have regularly scheduled airline services of the 727 and DC–9 type, how can you justify in the name of safety pulling a tower from that situation where you have this kind of mix of a very fast jet plane coming in carrying a hundred or so passengers and intermixing with no control whatsoever, except talking with some automated flight service station guy, who might be sitting 100

miles away, to know where there is a little Piper Cub floating around in the vicinity?

There was a crash in San Diego or Los Angeles a year or two ago with disasterous effects where you had a tower. Where you don't have a tower, it would look like the odds are considerably greater. How do you justify that?

Mr. BURWICK. I guess to take it in total context, we have to, of course, initially start looking at an airport that may be nothing more than a farm strip, a very small town location.

Senator ANDREWS. It is difficult to land a 727 on a farm strip. I had trouble enough landing my Comanche on a farm strip years ago.

Mr. BURWICK. At some point in time when you start at that airport level and you reach a point in time when you reach a type of airport like St. Louis Lambert or an airport such as O'Hare, we have to have some kind of guideline or criteria. Our criteria provide us the general guidelines which we review whenever we apply this criteria.

Senator ANDREWS. I am asking about the criteria when you have regularly scheduled major airline service with three, four, five or more flights a day coming in and out of an airport. Wouldn't that justify retaining an air control tower if you have one now?

This is the thing that is appalling to me and other members of this subcommittee because we are beginning to think that when you begin to shut down towers in airports like this, you are more concerned about the almighty buck than you are about the safety of those planes that are going to carry 100 passengers and mix in, with no control whatsoever, with planes that travel one-fourth the speed.

Mr. BURWICK. I recognize that at some point in time you are going to have a number of operations of which that is the supreme consideration and that is, in effect——

Senator ANDREWS. Don't you think this represents a safety hazard?

Mr. BURWICK. I think it represents a safety hazard when you reach a certain level of that kind of mix. But to have one air carrier service a day, maybe one military a day, and some smaller number or some number of general aviation, doesn't necessarily create a hazardous situation.

Senator ANDREWS. Maybe not one a day, but five or six might. Where do you ascertain the difference?

If you have the opportunity for a small, slow plane to be mixed up with a much faster plane five or six times a day, does that become critical? Once or twice a day? Eight or ten times a day? Where do you risk the safety of 100 passengers that are coming in on this bigger airplane plus the single pilot on this small plane fluttering around up there?

Mr. BURWICK. We do have some 450 airports today that have air carrier service that do not have control towers.

Senator ANDREWS. 450 with DC–9 and 727 types? A total of 450 major airline service with no towers today?

Mr. BURWICK. There are 450 airports where all the various types of aircraft are located in those airports.

Senator ANDREWS. You are, in effect, telling the committee that you have 450 airports today that are served by 727 and DC–9-type regularly scheduled airliner service that do not have towers?

Mr. BURWICK. No, that is not what I said.

Senator ANDREWS. That is how I inferred it.

Mr. BURWICK. Clearly stated, we have 450 airports which have air carrier service. What makes up all those types of aircraft in that air carrier service, I do not know.

Senator ANDREWS. There is a vast difference, really, between a big airline which flies a small airliner commuter service that is relatively the same speed as the private planes that are going in and out that we have in a number of places in North Dakota and Delta Airlines or TWA or Northwest or Eastern coming into an airport.

That is what I am trying to get at. There certainly are not 450 airports that have regularly scheduled airline service. You said a minute ago that you have 21 that you are closing.

Mr. BURWICK. Twenty-one of the fifty-one candidates.

Senator ANDREWS. So, you are closing 21 towers that have been deemed necessary over all of the programs we have had in the past that have this kind of major airline service.

You, yourself, said a moment ago that it does pose a safety hazard. Whether it poses it at one or two flights a day or seven or nine flights a day, you are not specific, but you say it does pose a potential safety hazard.

Could you provide for the record a reconciliation between the traffic counts that the Minot, N. Dak., tower submitted to FAA in July 1983 and those submitted by FAA on October 14?

The figures I get from the airport manager are different from the figures I get from FAA. I would imagine somebody on site must have been counting those aircraft and not somebody 150 miles away on some of those automated things.

Mr. FENELLO. I have those numbers and can provide them for the record going back from 1978 to 1983.

Senator ANDREWS. Fine. If you will provide them for the record.

[The information follows:]

TRAFFIC ACTIVITY

The traffic activity submitted to FAA in July 1983 is for the 12-month period ending June 30, 1983, and is the same as what we have on file for this period. The traffic activity we provided was by fiscal year. The following figures are the traffic activity summaries FAA has on file for the years 1978 through 1983:

	AC	AT	GAI	GAL	MI	ML	Total
Fiscal year 1978	3,552	75	31,676	31,811	938	473	68,525
Fiscal year 1979	3,120	494	28,589	30,311	893	643	64,050
Fiscal year 1980	2,544	747	25,455	22,976	88	879	52,689
August 1980 to July 1981 (12-month prestrike)	2,135	183	24,495	22,584	94	812	50,303
Fiscal year 1981	2,084	197	22,693	21,676	105	756	47,511
Fiscal year 1982	2,233	493	19,236	17,561	99	798	40,420
July 1982 to June 1983 (12-month period mentioned)	3,093	800	21,164	20,000	97	1,496	46,650
Fiscal year 1983	3,350	864	21,188	18,262	97	1,806	45,567

The increase in AC is due to the addition of another Frontier Airlines flight. The AT increase is due to Starfleet, a subsidiary of Federal Express, which began operating

weekdays once a day and sometimes twice a day. The increase in ML is due to military aircraft from Minot Air Force Base making practice low approaches at the airport after being offered the use of the airport when training capacity was a problem at the Air Force base.

Senator ANDREWS. Senator Chiles.

Senator CHILES. Thank you, Mr. Chairman. I will yield to Senator Eagleton.

Senator EAGLETON. I will be glad to yield to Senator Byrd who may have time constraints.

Senator ANDREWS. Senator Byrd.

Senator BYRD. I thank the chairman and Mr. Chiles and Mr. Eagleton for deferring to me. On this particular occasion I am not in any bind as to time. I would rather, Mr. Chairman, that you proceed as you would otherwise.

Senator ANDREWS. You and your colleagues can figure out how you wish to proceed. I want to give you adequate time to ask questions.

Senator EAGLETON. I will jump into the breech and take up the subject that Chairman Andrews was talking about.

Of the 52 closures, 4 of them are in Missouri—Cape Girardeau, St. Joe, Joplin, and Columbia. I, too, want to inquire into the question of criteria.

Mr. Fenello, if you wish to field the questions yourself or refer to one of your associates, that is fine with me.

For example, let us focus on the one at Joplin, Mo. It is shown that under your figures it will produce a cost effectiveness through 1993 of $2.2 million. Can you tell this committee exactly how your folks arrived at that cost savings figure using the Joplin tower, or you can refer to any of the other Missouri towers as a specific example?

Mr. FENELLO. Mr. Goldman.

Mr. GOLDMAN. The cost figures relating to Joplin, as well as other towers, came from studies done by our regions. They include the one-time cost that would be related to closure and the net recurring saving that would result from not having staffed those towers. That is the cost avoidance for the 10 years up through 1993.

Senator EAGLETON. Don't you also juxtapose the cost saving in personnel against risk of safety and health or risk of death?

There is some comparison made, is there not, between dollars saved from personnel that will no longer be in the tower and hazards that are incurred as a result of the tower being unmanned?

Mr. GOLDMAN. We did not do that in this book. The agency has looked at that area and it is a most difficult item to try to put a cost on.

Senator EAGLETON. I am told, for instance, back in 1981 that in the computation of these matters the FAA used a figure for a fatality of $300,000 and that was factored into the equation in deciding which towers should remain open and which towers should be closed. Some of these towers in Missouri have been targets for closure for several years back through previous administrations.

Mr. GOLDMAN. Mr. Safeer informs me that we do include in the criteria some figures related to that.

Senator EAGLETON. Is the figure I cited, $300,000 for a fatality, factored in?

Mr. SAFEER. No, sir. That was one of the values that we reestimated since the original criteria was developed. We now estimate it is approximately $625,000 per fatality with a somewhat lower figure for nonfatal accidents as well as the value of the equipment, the aircraft that are destroyed or partially destroyed.

Senator ANDREWS. This is fantastic. This is kind of like Alice in Wonderland.

You are telling us we have to have some fatality out there before you can consider opening the airport because you will give them $625,000 credit per fatality?

Mr. SAFEER. No, sir. What we are saying is that in order to do an economic criteria, one has to look at the potential benefits as well as the cost.

On a probabilistic basis we try to estimate what the benefit would be in preventing an accident. We do that by using data for the specific kind of airport that we are analyzing, where we have a low activity rate, low number of air carrier operations, low number of general aviation operations, and some military. We work it on a probabilistic basis as to the safety risk.

Senator ANDREWS. He has already said there is a safety risk when you have a DC–9 mixing with a small airplane.

Mr. SAFEER. There is a low probability that there might be an accident.

Senator ANDREWS. Do you want it to happen before or after the fact? That is the thing that seems amazing to me.

Senator EAGLETON. I am interested in that same point, as obviously Senator Andrews is, because I take the view that the primary function of the FAA is safety and to prevent fatalities and prevent people from being injured.

An article caught my eye a year or so ago. I put it in my file. It is applicable here today. It is by Richard Cohen of the Washington Post back on June 23, 1981. He points out that:

> The Ford Motor Co. did the sort of balancing act that the Reagan people seem to admire. He figures that an $11 improvement in the fuel tanks of an estimated 12 million cars and trucks would save 186 lives. He put a $200,000 price tag on each life and concluded that it would be cheaper for Ford to stick with the old fuel tanks until the Government forced him to make a better one and put it in the car.

I sort of cringe at the notion that we factored in the cost of life back in 1981, I think I am correct, it was $300,000 back then. The price of life has gone up.

Senator CHILES. It is inflation.

Senator EAGLETON. It is inflation. There is no COLA or indexing of it. It has gone up to $625,000 and we are juxtapositioning these figures and trying to decide whether to close these towers.

Now you are closing 52 of these towers. Unlike other facilities, for instance, air traffic facilities, flight service stations, the report shows no new tower openings or expansion of existing towers.

Mr. Fenello, am I correct in assuming that these closings represent a net shrinkage of the air traffic control tower system?

Mr. FENELLO. We are constantly studying the manning of a specific tower. The manning can vary depending on the use, the requirements for it. I know that was an unfortunate exchange prior to this question because we are constantly assessing the risk of mixing air carriers and general aviation airplanes and constantly studying it.

In recent years there has been a big shift. What brings about a lot of these flight service station and tower decisions that we are making is the shift in the traffic.

If you look at Joplin, itself, you will notice that since 1978 the traffic has been reduced by half. I don't cite that as a conclusive number to say for that reason and that reason only we close Joplin.

I am using that as an example and that it requires constant assessment as to where we can best put the limited taxpayer dollars that we have available to us.

One of the bottom-line answers to some of the questions that have been asked—and the Congress decides this—is the limit that you wish to place on the dollars that are available to provide a safe air traffic control system.

You have to draw the line someplace. We are attempting to meet our responsibilities to the taxpayer and to this Congress by providing you with as much information as we have been able to gather to substantiate the decisions we have made.

We, of course, welcome the inquiry you are making and will do nothing but sharpen our assessment as we continue to work in this direction.

Senator EAGLETON. A final question is this, Mr. Chairman. What, if any, opportunity have local and State aviation people had to comment on these proposals? Specifically take Missouri and the four towers that I have mentioned. What opportunity have State aviation people or local aviation people in those four communities had to comment?

Mr. BURWICK. At this present time, Senator, that has not gone to the local entities.

One of the processes that we go through, as we do our internal evaluations, as we have identified these candidates, is to go to the communities and give them an opportunity to provide their input.

One of the reasons we have not done that to this time is because we are reluctant to do that before coming before this committee.

I would only like to add that in the application of the criteria, we don't use it as a cold, hard piece of document, but after identifying these candidates when we go to the local communities, it does give us the opportunity to have that kind of input and to make special adjustments when there is just cause, we feel, for consideration to deviate from the criteria.

Senator EAGLETON. Thank you.

Mr. Chairman, there was a proviso added in last year's transportation appropriation bill, section 319:

Provided, further, in the instance of any proposed closure or consolidation questioned in writing by the House or Senate committee, no such proposed closure or consolidation shall be advanced prior to April 15, 1984, in order to allow for timely conduct of any necessary congressional hearing.

With due respect, I want to request this committee to exercise that proviso.

Senator ANDREWS. Might I assure the Senator I have instructed the staff to contact the members of the subcommittee.

We will be shortly transmitting letters from the committee questioning the closures that we feel have a safety factor and, as I say, the hearings today were to begin to delve into this safety factor and I think the candid responses of the witnesses, the fact that there is a safety factor involved, give us the reasons for sending the letter.

Senator EAGLETON. Thank you, Mr. Chairman.

CENTRAL FLORIDA

Senator CHILES. Mr. Fenello, with regard to the proposal to consolidate flight service stations in Florida, I understand you are proposing to close the Melbourne and Orlando offices and have the activities of those two offices picked up by the expanded and automated flight service station in St. Petersburg.

Mrs. Bloomburg of Orlando, who is executive director of the Orlando Aviation Association, has visited my office and raised a number of issues about the FAA proposal.

It seems, in essence, what she and other general aviation pilots seem to be concerned with is that they are now receiving their weather briefings from an FAA official and when the system changes they will be receiving those briefings from a computer.

While it still will be possible to talk with an FAA official, the concern is that with fewer and fewer FAA employees, it is going to become increasingly difficult for a pilot to talk to an official or ask questions and get answers about unique weather conditions.

Florida, like a lot of other States, sometimes has some pretty unique weather conditions.

How do you deal with her concerns that the pilots will have a difficult time to find someone to question about weather conditions and their flight information as opposed to having this computer tell them?

Mr. FENELLO. I will respond first by saying we have done a very poor job of explaining the flight service station consolidation program to the general public and general aviation pilots in particular. We are trying to play a little catchup in that regard by explaining just what will be available to them.

A specific case in point is that they have also mentioned that the Weather Radar Service that was previously available to them will not be available. But that is not a fact. The fact is that the same radar will be providing the same information and it will be available to the same pilots requesting it as had been requesting it before.

The towers, of course, are still available to the local pilots there. St. Petersburg service will include experts in the flight service station, experts in Florida weather, which the pilots can avail themselves of.

We have mentioned already here that the pilot will not only have radio contact, but ability to access a computer which you mentioned. The computer will be providing the exact same data to him except that it will be providing, for example, weather data that is much more current than he has been obtaining in the past.

In the past we have been relying on hourly weather forecasts. He will be getting up-to-the-minute reports on weather, changing that fast, for him to make decisions on.

It only points up that we have done a poor job of explaining all the benefits that will be available to him.

WEATHER-SENSING EQUIPMENT

Senator CHILES. It is my understanding this weather-sensing device is going to be installed in locations that are losing flight service stations and weather data will be checked mechanically with this information relayed to the new flight service station.

That information is going to continue to be collected by Federal employees or other individuals under contract until the new system is fully operational and the new technology, as I understand it, is under test in 21 locations around the country, but as of now has not been certified or has not been proven to work effectively.

If this equipment does not work adequately, does the consolidation proposal make sense and what would be the impact on the estimated savings if this weather-sensing equipment does not prove to do what you expect it to do?

Mr. Fenello. From a safety standpoint, the first answer to your question is that there will not be any lessening of the services that they are receiving now in the form of weather.

If that weather-sensing proves not to work, which we are not looking for—as a matter of fact, there are 14 active now out there that are working very well, and we have every confidence that it will work—there will be 700 weather devices out there, far in excess of the number of weather reports that are being taken now.

Those devices, also supplemented by those locations where the U.S. Weather Bureau will be continuing to provide weather services and where an individual is required, and we consider that the automatic service is not adequate, we will see to it that there will be an observer providing weather information.

So, we have considered every possibility, but perhaps Marty would like to comment on the technical aspects of that weather service.

Mr. POZESKY. Senator, Mr. Fenello has covered the points I would make.

We believe, as he said, that the tests we have right now are very successful. We just sent out, I believe last Friday, pilot questionnaires to the pilots that are receiving the service to get their reaction to it.

We would expect that this program will be successful, but our planning for the program really is based on equal or better service.

In the very unlikely event we have technical problems with it, we will supplement that with either contracted weather observers or in some cases the National Weather Service people.

Senator CHILES. What would that do to our cost, to your estimated savings? If you have to supplement it, wouldn't the cost advantage go out the window?

Mr. POZESKY. No, sir, it would not. I can supply the detailed cost differential for the record.

Basically, what we would be talking about would be a weather observer for a limited period of time or contract Weather Service at a location and we would still benefit from the fact that the other flight service station employees will be providing that service at an automated facility.

So, the net number of people in place would still go down, also the cost effectiveness would be retained.

I could supply a detailed analysis for the record.

Senator CHILES. I think that would be helpful.

[The information follows:]

ESTIMATED UNIT LIFE-CYCLE (15-YEAR) COSTS OF ACCEPTABLE WEATHER OBSERVING SYSTEMS AT MANNED STATIONS OPERATING 24 HOURS DAILY[1]

[Discounted present value 1981 dollars in thousands]

	Manual systems	AWOS	Difference
Equipment and initial spares	$59.4	$86.9	($27.5)
Operations and maintenance:			
Observation personnel	342.4	17.2	325.2
Maintenance personnel[2]	24.2	5.7	18.5
Spares replenishment	45.4	13.0	32.4
Communications	14.7	23.3	(8.6)
Facilities	23.4	19.2	4.2
Total	450.1	78.4	367.8
Total without obs. personnel	167.1	148.1	19.0
Total with obs. personnel	509.5	165.3	344.2

[1] Includes parameters for wind direction and speed, temperature, dew point, altimeter/pressure, ceiling, visibility, liquid precipitation, and other present weather data.
[2] Assumes no RVR interface for AWOS.

Senator CHILES. The only question I have, Mr. Chairman, along this line is that they are proposing that these stations be closed and we are going to the automatic equipment and yet we are sort of waiting on the proving of what we hope will work in all these automatic sensors.

It seems to me that maybe we should know that they are going to work and build our plan on the basis of what we know the proven results are rather than what we sort of hope or expect.

Mr. POZESKY. Let me make one other comment, Senator. It is a technical comment, but it is important in dealing with the concern that you have.

The automatic weather system, we call it AWOS, is indeed not yet certified by the FAA. From a technical point of view the basic underlying devices which sense the weather have all passed certification by the National Weather Service.

The program we have before us now is to take standard available certified weather measuring devices such as wind speed and temperature,

dew point, and integrating those with the computer and turning that around and generating a voice response.

Indeed, we have not certified it, but from a technical viewpoint the risk of failure is fairly low.

Indeed, one of the points I want to make is that we have in our planning put in the cost of maintaining a supplementing weather observer where we felt it was necessary for a 10-year period in each of our cost estimates.

So, we are accounting for that. That is our policy and plan as we go with the flight service station modernization.

We are serious about the need to maintain equivalent service as we go through this program.

Senator CHILES. I still feel a little uneasy, Mr. Chairman. I think what they are asking us to do is a little bit like Boeing or Douglas coming to FAA and saying: "We have a new plane and this plane is not going to need a pilot. We are confident it is going to work. We want you to certify the plane now. We are confident that it will work. You certify it and we will even agree that we will furnish pilots for a temporary period of time if it is not proven or perfected by the time it goes into being."

I think FAA would look very dimly at that. I think you would be wanting to see the flight tests and everything else. Yet you are kind of wanting us to embark on this flight or approve this plan when we don't have the information to prove that it will work.

TOWER CLOSINGS

I notice you are proposing to permanently close the air traffic control tower at Dade-Collier. The tower at Vero Beach will also be closed.

The impact in Florida is not like it is in some of the States like Missouri or West Virginia where you are proposing to close four towers in each State, but under the current law FAA is permitted to contract out tower operation.

While it does not seem to be well-known, there are many non-FAA towers around the country. We have eight airport towers in Florida that are operated and funded locally with Federal involvement being limited to certification of personnel.

That pilot, when he contacts the Lakeland tower, my hometown, he doesn't know whether it is an FAA tower or not, but he is using that tower and it has FAA-certified personnel.

What is the possibility of permitting the towers that you propose to close to be kept open or reopened either by a Federally funded contract or locally by the various affected communities?

Mr. FENELLO. Senator, at the present time if a tower is a candidate for closing because it doesn't meet the criteria for being open, we have not considered contracting out an alternative.

In other words, if it is a candidate for decommissioning, we felt that it was not necessary to man that tower. If the local community wants to do anything, we will work with the local community to see to it that they have qualified people in the tower.

We have another ongoing study which will look at the possibility of taking a tower where the tower does not meet retention criteria and maintaining it as a commissioned tower and sharing the cost—I must underline the fact that that is still in the study stage—we will take a look at that later and possibly have a proposal to make to the Congress on that one. That would be a second approach to consider before decommissioning a tower. It would be a candidate for decommissioning, but we would share a retention cost.

The one you raised, the first one would be where it is clearly a decommissioning candidate and we would not approve a contract arrangement to cover it. Where it was not a decommissioned tower we would approve a contract for it.

CONSOLIDATION SCHEDULE

Senator CHILES. Your proposal shows the central Florida FSS in St. Petersburg, showing that opening in 1985 and 1986 with the Melbourne facility scheduled to close in 1985 and the Orlando facility closed in 1986.

Will the St. Petersburg facility be fully operational before those Melbourne and Orlando facilities are closed and, as a general rule, will you have new facilities fully operational before you close the old ones?

Mr. FENELLO. It will not be fully operational from an automated standpoint, but the services provided will be fully available to the pilots using the St. Petersburg facility.

Senator CHILES. What services? Are they going to have diminished services from what they had in Orlando or Melbourne in the interim time?

Mr. POZESKY. All the services provided now will be remoted into the new facility. They will indeed have, in reality, we believe, actually better services available from the new facility in this interim period.

The weather information will be remoted. We will provide toll-free access where it exists now to this new facility. DF information, any of the existing technical capability, will be remoted into the new facility. There will be no changes in service.

Senator CHILES. Mr. Chairman, I have some other questions I can submit for the record and Senator Stennis has some questions.

Senator ANDREWS. Fine.

You have made an excellent point, Senator. We can talk about the airliner that they said they wanted to fly without the pilot. They are going to have it certificated. In the meantime, they will try to fly it.

I guess it is the responsibility of the committee to supply the pilot until we really know what will happen down the pike.

Senator Byrd.

Senator BYRD. Thank you, Mr. Chairman.

I am very concerned about the proposals to close a number of air traffic control towers nationwide; four in West Virginia. I have heard from a number of West Virginia pilots, air traffic controllers, businesses, airport managers, passengers, county governments, all expressing their concerns over the FAA's proposal. I share those concerns.

How many of you have flown into the Clarksburg Airport?

Mr. FENELLO. I have.

Mr. CASTLEBERRY. I have.

Senator BYRD. How many have flown into the Morgantown Airport? How many have flown into the Lewisburg Airport?

Mr. BOHR. I have.

Senator BYRD. How many into Wheeling?

I have flown into all these airports, naturally. I flew into West Virginia on 39 straight weekends the year before last.

Last year I think I was in West Virginia every weekend except one, that being the week that my oldest grandson was killed.

West Virginia has,of course, very mountainous terrain and the kind of weather conditions that are unpredictable with any great degree of certitude.

I view this proposal as being an unwise one. I understand that the FAA recently developed new criteria, underpinning the cost-benefit ratios, for discontinuance of air traffic control towers.

Now, if the chairman has already asked this question, I don't want to be redundant. What factors go into determining the cost-benefit ratio? Has that question been asked?

Senator ANDREWS. We skirted it, but it is good to have it reemphasized.

Senator BYRD. All right.

Mr. SAFEER. I might answer that. On the benefit side we looked at the services that are provided by a tower, reducing delays because you can make direct approaches with the tower informing the pilots as to which runway to use and fuel savings. We looked at the safety element, the accident probabilities, the difference in rates without a tower and the benefits to be derived from having a tower.

On the cost side, we looked at the capital cost in providing the tower and equipment and the life cycle cost of maintaining and staffing the facilities. That pretty well summarizes the cost, Senator.

Senator BYRD. What dollar value have you placed on the life of a passenger?

Mr. SAFEER. Using the actuarial data, the court cases, and other sources of data, we estimate $625,000 per fatality.

Senator BYRD. I would like to ask how you arrived at that figure?

Mr. SAFEER. As I say, we looked at the reported settlements in court cases where there were fatalities involved in aviation accidents. We looked at insurance company actuarial reports and we looked at other work done in other modes of transportation, and other sources such as EPA studies. We actually arrived at a higher value than most of the other studies of a similar nature.

Senator BYRD. I won't ask you this question, but I wonder how many of you would be happy to settle for that amount if a grandson were to be killed or a son or daughter or a husband or wife?

I won't ask you to answer that. I think what we are doing here is measuring savings of dollars against the value of a human life.

I am fortunate to live close to Washington; unfortunate that often I have to fly in very bad weather into West Virginia. The weather in Washington can be sunny and pretty and the weather in West Virginia can be bad, lots of fog, very low ceilings.

I have a feeling that perhaps, Mr. Chairman, some of our FAA people should be from West Virginia.

Senator ANDREWS. Back in North Dakota, Senator, the Indians have an old saying, "If you walk in the other man's moccasins for a while, you understand far better his problems."

Senator BYRD. Yes, I think that would help.

I have never considered myself as an individual with a lot of nerve, but it takes some nerve to fly under those conditions.

In determining the cost-benefit ratio for operations, a weighted formula is used. What value is given to each of those operations in determining the cost-benefit ratio? In other words, you count Piedmont flights; and, at the same time, you do not count scheduled commuter flights such as Aeromech.

Mr. SAFEER. In the computation of the benefit-cost ratio we look at the specific mix of aircraft that are used at the airport, whether they be the larger jets of Piedmont or the commuter aircraft used by Aeromech or any other general aviation aircraft. We look at this and look at the dollar value of the aircraft as one of the factors.

Senator BYRD. We formerly had some major airlines flying to various airports in West Virginia. When we voted for deregulation, and I will always regret that I voted for deregulation, Aeromech took up the service. So, we are now crowded into a small commuter airplane with 16 or 18 seats.

Is there any difference other than the higher number of lives lost when a Piedmont crashes and a loaded Aeromech crashes? Aren't we being a little cynical when we say that we will count the major airline, Piedmont, which goes into Charleston, Huntington, Lewisburg; but Aeromech, inasmuch as they can only fly maybe 16, 18 or 20 passengers, they don't count? Is that what you are saying?

Mr. SAFEER. They both count, but the dollar values are different.

Senator BYRD. What dollar value do you put on human life is what I am asking.

Mr. SAFEER. We are constantly making decisions, sir, when we allocate limited resources between how we are going to allocate them. That is why we don't drive tanks on the highways, we drive cars that are light and fragile. We have to make choices. One way of making choices is to put dollar values, rather distastefully, on the value of life.

Senator ANDREWS. Obviously, we don't drive tanks on highways because the mix of the tanks and Volkswagens and light cars would be disastrous. That is exactly the line of questioning that we entered into earlier. When you start mixing 727's and Piper Cubs, you have something different than straight counting airplane numbers.

Mr. SAFEER. But we do mix double bottoms and Volkswagens.

Senator ANDREWS. You mix double bottoms and Volkswagens and

everyone who comes before us and testifies before this committee points out that there is a safety factor involved. That is why we engineered and designed those highways and that is why we have controlled access on and off ramps and a host of other things. Suddenly you are pulling off the control towers from a mix of these 100-passenger airplanes and lighter airplanes.

Senator, before you came, they did say there was a safety factor involved that concerned them. That is part of the record.

So, your questions, as always, are right to the point and there certainly is a safety factor and there ought to be some type of recognition.

I would suspect, Senator, that the members of this committee will look awful closely at that kind of mix and give that a high priority.

Senator BYRD. Knowing the chairman and the other members of the committee as I do, I am confident that the chairman means what he says and that that will be done.

I cannot understand why Aeromech, which has scheduled commercial flights into a good many cities in West Virginia, is apparently being counted as an air taxi.

The commuter airlines such as Wright Airlines, Aeromech, are operating under the same regulations as the larger common carriers and providing the same type of service and, in some cases, perhaps better service. Now, why should they not be counted in the same manner that a large common carrier would be counted?

I suppose you would say that the large carriers carry more passengers and have a greater dollar value, but the number of takeoffs and landings are the same for a small carrier as for a larger carrier in the same airport. Therefore, they need the same type of assistance from the control tower that the larger aircraft require.

Let us talk a moment about Lewisburg. FAA has proposed that the Lewisburg air traffic control tower be closed in fiscal year 1984. How many air traffic operations were there at Lewisburg in 1982?

Mr. BURWICK. The tower at Lewisburg was closed during that period of time. We do not have figures for that from the FAA.

Senator BYRD. You don't have any figures on Lewisburg? Piedmont flies into Lewisburg, but you don't have figures on Lewisburg? Is that what you are saying?

Mr. FENELLO. We have the figure for 1981 which was 18,322 total operations and partially affected, I guess, toward the end of that year by the air traffic controllers' strike.

The 1982 figures would probably be lower because of that strike. But to compare it, they were running in 1978, 22,782. It went up to 24,000 in 1979, down to 21,600 in 1980, and in the prestrike period, 20,900 if you go back into 1980 to get a full year.

So, we could say they probably went back up, perhaps, into the 20,000 category in 1982, but we don't have the exact number.

Senator BYRD. I have a number for Lewisburg—40,423 operations in 1982.

How many of you have been to the Greenbrier?

Mr. CASTLEBERRY. I have.

Mr. FENELLO. We have nothing that relates to that. We will be glad to talk to the airport manager and get the benefit of his computations, sir.

Senator BYRD. The reason I ask how many of you have been to the Greenbrier is because that is one of the outstanding resorts in this country; and there are a great number of conventions held there and a large number of corporate jets, smaller planes than Piedmont, which fly into Lewisburg.

Mr. FENELLO. We recognize your concern. As a matter of fact, we have been working with the airport manager there and have been providing services as he agrees he needs. For the time being, we intend to continue that practice.

Senator BYRD. I believe the controller there is on an 8-hour schedule; is that right? And sometimes there is no controller at all?

Mr. FENELLO. I am not sure about the 8 hours. I am sure it is not more than 8 hours if it is one man at a time. But we are working with the manager and have been providing the service when he felt it was essential and we intend to continue to do that.

Senator BYRD. Are you telling me then that the tower will not be closed in Lewisburg?

Mr. FENELLO. All the information I have, Senator, is that we are going to continue to work with the airport operator there, the airport manager, and provide the service he feels is essential.

Senator BYRD. He feels that it is essential that we have someone in the tower. So, you are saying then that the Lewisburg control tower will not be closed?

Mr. FENELLO. The decision to close it has not been made. The decision has been made to continue to work with the airport manager.

Senator BYRD. Of the 40,423 operations in 1982, 34,688 of these were general aviation. Approximately 90 percent of those general aviation operations were corporate jets.

You can have a beautiful day here, you can have a beautiful day in Greenbrier County, but there will be fog on that landing strip until 10:30 in the morning and early in the evening.

I take it that you are not going to close that Greenbrier Airport control tower?

Mr. FENELLO. The answer right now is, "No."

Senator BYRD. That is one of the four.

Senator ANDREWS. You are 25 percent of the way.

Senator BYRD. FAA has also identified the air traffic control towers at Wheeling, Morgantown, and Clarksburg for closure. Are you in a position to know how many landings and takeoffs there were at the Clarksburg Airport in 1983?

Mr. FENELLO. Clarksburg, 1983; I don't have the number. I do have the 1981 number. The last number was 66,730, arrived at the same way we arrived at the last one. These are potential candidates. No decision has been made on Clarksburg.

Senator BYRD. Now for Wheeling there were 71,000 flights. I have a letter from the Ohio County commissioners—corporate, government, military, and private aircraft use the airport and during the past year, 1982—I said 1983 earlier—there have been 71,000 landings at the airport. I continue to read the letter from the Ohio County commissioners:

> The U.S. military utilizes our airport heavily, with the Air National Guard using it daily for exercises and also the National Guard helicopter unit from Washington, Pa., practices there daily.
>
> With this heavy use by the military, there is an important safety factor, not only for these aircraft, but other public and private aircraft which utilize the airport and airways at the same time.
>
> There must be a continuation of the organized and professional controls to avoid serious accidents.

So, what do you propose for Wheeling?

Mr. FENELLO. For Wheeling, we don't propose any action there before 1985. It is just a potential decommissioning candidate.

The 71,000 number, we will have to talk to your airport manager and get the benefit of his computations. It does compare favorably, though, with prestrike numbers.

In 1978 there were 75,000 activities; in 1979, 70,000. So, it is conceivable that they have come back since the strike and have recovered to almost the prestrike level.

Mr. BURWICK. Could I interject?

We do have some figures from 1982 that I was able to get. They indicate at that time there were 35,561. It seems like there has been a remarkable increase in the last 12-month period. It is almost double the previous activity.

Senator BYRD. If you are correct on the previous year—and we will also check on that—then there has been a phenomenal increase.

Let us go to Morgantown. How many operations were there at the Morgantown Municipal Airport in 1982?

Mr. BURWICK. In 1982 we show 57,345.

Senator BYRD. That is pretty close to what we show, 58,336. Now that airport services the West Virginia University Medical Center which is the only designated trauma center for northern West Virginia. It is also the only intensive care neonatal unit for that area. Earlier this year when the flight service station was closed because of a staffing problem, several lifeguard flights were denied clearances to land, precluding access to these life-saving facilities.

As I say, that is the location of our largest university. I am strenuously opposed to closing that tower. To me, you can't measure human lives in terms of dollars. You just can't do that.

It makes me rather nervous to think of having to fly into Morgantown or Clarksburg or Wheeling without a controller in the tower there, somebody who, if there is a problem, who can tell the pilot that his wheels are not down, for example, and provide other information that only someone in the tower can give.

Another problem are deer which run on the runway and they put fences around the airports to keep the deer off the strips. The local controller is in a position to warn pilots of these hazards.

I think it is very callous to think of human lives as being expendable and not one of you gentlemen would be willing to trade any member of your family for $700,000.

Let us look at Clarksburg. In Clarksburg how many operations did you have in 1982?

Mr. BURWICK. 56,889 for 1982.

Senator BYRD. Did you count Aeromech flights in that?

Mr. BURWICK. I don't know how Aeromech was counted in that. This shows the total count by commercial, general aviation, military.

Senator BYRD. Aeromech flies into Clarksburg and into Morgantown.

Have any of you ridden on Aeromech to West Virginia?

Why don't you go sometime and I will go with you. I don't want to appear to be taking advantage of you here and badgering you.

These closures may be the decisions of someone higher than you. I suppose I appear to be a bit personal. I don't want to be that way; and I apologize. But these decisions may have been made by someone else at the Department. I am asking some rhetorical questions which I would not expect you to answer, but for the record I want to ask them so that somebody higher up can read them as well.

Now, will someone at the table tell me whether the closure of these airport towers will, if they are closed, reduce safety in any way?

Mr. BURWICK. No, we do not believe it will reduce safety at those locations.

Senator BYRD. How can you really say that?

Mr. BURWICK. Sir, we have a tremendous amount of experience with the locations. We are aware, in fact we have these types of operations being conducted and we have an indication there is not a degradation of safety.

I would like to take this opportunity to speak about the four specific airports in West Virginia.

One of the things we would like to strongly express, so that we are totally understood as to what we are trying to do and what has been presented on the tower program, is that they basically are candidates for us to look at and evaluate as proposals for decommissioning.

No decision has been made. Very important steps have to be taken before we go any further. We will specifically go, on the 1985–86 candidates, to those locations to determine that we are not making a mistake before we take final action or propose final action. Certainly in the out-years that includes three of the towers that you mentioned in West Virginia, those are all locations that we merely indicate that by the criteria, they are marginal or borderline.

So, we will, in fact, be looking at those in the future. We will continue to give consideration to the kinds of concerns and activities that you have presented today and that is very much in the process today. We will continue to do that in the future.

Mr. DERMAN. If I might interject, I think both you gentlemen are fully aware of Secretary Dole's commitment to safety as the No. 1 priority from the standpoint of the Department and that under no circumstance would we move forward in any way that would derogate the safety responsibilities that reside with the Department's mission.

Senator ANDREWS. But you are, that is the problem.

He said now no safety problems exist. Yet when I was questioning, he said you come to a point where you do have a safety involvement.

He didn't know whether it was one or two or three flights a day of these 100-passenger airplanes coming into a field like some of yours in West Virginia, Senator, and Piedmont flies jets. These airplanes carry 100 passengers at a time.

The appalling thing to the committee, let me point out, is the way you factor in the presence of these 100-passenger fast jets and the Piper Cubs. As I read your criteria, you put them in a factor of 1 to 5.

So, if, Senator Byrd, one of your friends is flying into that airport in West Virginia in a Piper Cub, he counts as 1. If a Piedmont airplane comes in with 100 passengers, that just counts as 5. That is dumb. That is a criteria that I find awful difficult to justify.

We have in North Dakota a lot of problems with foggy weather and snow and a bunch of other things. If we have a Republic Airline or Frontier Airline plane coming into Minot Airport where you do have some safety factors there, it seems idiotic to me that your pencil pushers in your Department say that a Republic Airlines flight with 100 souls aboard count as a factor of 5 compared to a Piper Cub that is coming from Bottineau into Minot that counts as 1.

That is the mix that bothers me. That is the mix they pointed out earlier at some point, and they didn't know whether it was one or two flights or five or six flights, you do have a safety problem.

I talked to Secretary Dole this last week on this. I think the questioning that you have had today from the members of the committee from all parts of the country, and the questions you have left unanswered, and the fact you candidly admit there is in some of these cases probably a safety problem, I would hope since the cost of closing these down is considerable, that you don't underestimate the determination of the subcommittee to preclude you from closing.

In effect, I would hope that you understand that undoubtedly in the transportation bill, unless you come up with some answers far better than you have given Senator Byrd, Senator Eagleton, Senator Chiles, and me today, there will be orders in that bill saying no way are you going to shut these down.

Just be aware of that because we think you have a responsibility. I say this as a member of the Budget Committee as well as the Appropriations Committee, not to incur unnecessary expenditures on the part of the Government.

Since it is going to cost you 200,000 or 300,000 bucks to shut down some of these towers, you would be very, very silly and playing very loose with the taxpayers' money, given feelings expressed by the subcommittee, if you went ahead and closed them down.

I just hope you will make the Secretary aware of this.

I think Senator Byrd, from the other side of the political aisle, more or less indicated that what I am saying is pretty accurate; that is, if they do want to save the Government money, they should not move in a precipitous manner, shutting down these towers that they will have to open up at additional cost.

Senator BYRD. I do not intend to take much more time. Whether it is 20 lives lost or whether it is 200, Aeromech's small passenger planes compared to a 737 or 747, or whatever, if the accident could have been prevented by an operational air traffic control tower, any loss of human life is unacceptable; and the number of human lives looked at in the context of dollar amounts shouldn't be a factor in determining the cost-benefit ratio.

I have flown all over the world. I have flown through the Khyber Pass from Pakistan to Afghanistan, and the roughest flying I have ever encountered anywhere in the world has been over West Virginia.

You appear to agree that safety will be reduced to one degree or another, but I don't agree with that. I don't agree that this should be measured in terms of taxpayers' dollars. There are plenty of other places where the taxpayers' dollars can be saved and where the Congress has cut and will do some more cutting. I will never agree to trading safety for dollars where the lives of the American taxpayers are at stake.

Mr. Chairman, I thank you for the time you have given me and I thank the gentlemen at the table for their responses. They are in a tough spot; I recognize that. It is not half as tough as flying in the fog over West Virginia or landing at airports with gusty winds and realizing there is nobody up in that tower.

Senator ANDREWS. I thank my colleague and good friend for his usual fine contribution to the hearing.

Let me point out that other members will submit additional questions and material for the record for answers in the record.

The subcommittee is now in recess, subject to call.

Senator BYRD. Mr. Chairman, before you recess, my senior colleague, Senator Randolph, who is an old—not in terms of age, his spirit is that of a young man—but he is an old airline executive——

Senator ANDREWS. He is indeed.

Senator BYRD. He has flown in and out of airports in West Virginia for more years than I have.

Mr. FENELLO. Mr. Chairman, I think the record should also show that over the years the FAA, in carrying out the function delegated to them by the Congress of the United States and the citizenry of the United States, has done a remarkable job. We take a back seat to no one in the world in our safety record which exists. We set the standards, the same FAA people that might seem to be a little maligned have established the international standards for providing certification, be it aircraft or pilots or air traffic control systems, and it is their objective to continue to do that.

We do not agree that anything we are proposing will reduce safety. We have maintained consistently in our writings that it will equal or better the level of safety we are presently providing.

I recognize, and we all recognize, that to the individual who suffers an accident or loss of life the system is 100 percent a failure to that individual. But the fact remains, that on the average over the years the record has been a remarkable one and an improving one.

It is our intention with this recommendation for the NAS plan modernization and with the consolidation effort that we have proposed that that record would continue. It is our intention that it will improve.

Senator ANDREWS. Let me point ou. that those of us who sit on this side of the table are well aware of the significant contribution the FAA has made over the decades to airline safety and general aviation safety in this country. What we are talking about is not coming in to tell the FAA to do what they have not done. What we are talking about is some new decision by those currently in the FAA to shut towers in areas that have been justified for being open by the same FAA for many, many years.

If we want to have an open debate between the FAA of today and the FAA of yesteryear that compiled this great and very enviable safety record, sir, that you point out, maybe that is the way the debate ought to begin.

But we have a responsibility under the Constitution to hold these kinds of public hearings to hear from you gentlemen just exactly how you justify this new and, shall we say, sharp departure in the case of justification for airport control towers from the old FAA that did, in fact, achieve the safety record.

Let me say that these hearings have brought about doubt from your side of the table as to at what point you compromise safety. They have brought about some doubts as to why you factor a 727 as only five times the factor of a Piper Cub and some other things.

We have a responsibility to make sure that the new and current FAA doesn't louse up the enviable safety record established by the old FAA that determined that in these circumstances these towers should, in fact, indeed, be kept open.

The reason for the comment that I made in interpreting the probable decision of this committee is because, as a member of the Appropriations Committee and the Budget Committee, I am deeply concerned about wasteful expenditures of Federal money.

I would hesitate as a Senator concerned about the deficit to have you shut down a number of these towers that it will obviously seem from the testimony and the interactions of my colleagues and others, including the chairman of this committee, Senator Hatfield, you will be ordered to reopen.

That is just a little bit of warning as to how you can save money. But that is what we are here for and you are doing your thing and are doing very well and we are urging a little bit of caution and saying maybe your predecessors or maybe the FAA of 5 years ago had some pretty good criteria when they suggested the towers should be there.

That is the purpose of the hearing. We appreciate your coming and your contribution.

SUBMITTED QUESTIONS

Senator BYRD. I ask that Senator Randolph's questions be submitted for the record.

Senator ANDREWS. Without objection, the questions will be submitted for the record along with those of other Senators.

Senator BYRD. Mr. Chairman, I would ask that letters which I have received from the Ohio County Commission be included in the record.

Senator ANDREWS. The letters as well will be put in the appropriate place in the record.

Senator BYRD. I thank the Chairman.

[The following questions were not asked at the hearing but were submitted for response for the record:]

QUESTIONS SUBMITTED BY SENATOR ANDREWS

NATIONAL AIRSPACE SYSTEMS (NAS) PLAN

Senator Andrews: What is the status of the FAA's procurement of the microwave landing system (MLS) which will replace the existing instrument landing system (ILS)?

Response: Technical and cost negotiations are complete and contract award is scheduled for December 1983.

Senator Andrews: Is the FAA still projecting that savings in operating costs will save $25 billion (in 1982 dollars) between 1982 and 2000? How much have we saved so far? Since the consolidation plan represents savings by 1993 or $250 million, how realistic is the $25 billion goal?

Response: Yes, the National Airspace System Plan, when fully implemented, is projected to save $25 billion in operating and maintenance costs between 1982 and 2000. The basic premise for the development of the NAS Plan, however, was to improve the safety, efficiency, and productivity of the air traffic control system and related services. Virtually all of the programs outlined in the NAS Plan are required to allow the system to continue to operate satisfactorily through the 1980's. Consolidation permits cost benefits; it is not a requirement for improving safety or system performance.

Savings achieved in the first year of the plan (FY-1981) will generate $4.2 billion by the year 2000.

Senator Andrews: Of consolidation plan total savings of $250 million, what percentage is in personnel costs?

Response: The annual savings shown in the document are composed of approximately 91 percent personnel savings, as follows:

Type of Action	Cumulative Annual Savings	Cumulative Personnel Savings	% Personnel
FSS's	$111.90	$104.07	93%
ATCT's	132.69	116.77	88%
TRACON's	24.98	24.98	100%
AFSO's	12.10	12.10	76%
AVSO's	14.67	13.20	90%
	$296.34	$271.12	91%

To arrive at the cumulative cost effectiveness of $251.77, the one-time implementation costs must be subtracted.

Senator Andrews: According to the Consolidation Report, 630 positions will be saved through 1993. Are these positions currently filled? Will this necessitate reductions-in-force or do you expect attrition to achieve the savings? Provide for the record a list by fiscal year and personnel category. Also provide pre- and post-strike attrition rates for each category.

Response: Some of these positions are currently filled, we have not evaluated this information on a facility by facility basis because attrition is expected to accomodate all the position reductions. FAA has made the commitment that all employees willing to transfer will have a position, no reductions-in-force will be necessary.

Where positions are known to be vacant (as in the 35 towers that are currently closed) that information is provided in (). Position figures represent full-time permanent positions allowed via staffing standards. As can be seen below, more than half of the positions to be eliminated are already vacant.

POSITION SAVINGS BY YEAR BY TYPE OF ACTION

	FY-84	FY-85	FY-86
FSS's	0	0	78
ATCT's	297 (278.5)*	90 (18)	75.5 (19)
TRACON's	14	13	16
AFSO's	11	3	4
AVSFO's	23	0	0
	345 (278.5)	106 (18)	173.5 (19)

* An additional 5.5 positions were eliminated when the Valdez ATCT was decommissioned in FY-83.

ATTRITION RATES: PRESTRIKE VS POSTSTRIKE

	Pre-Strike	Post-Strike
FSS's		
All Personnel	7.8%	6.1%
Terminals		
Full-Performance		
Level Controllers	3.0%	3.2%
GS-11	2.0	15.0
GS-09	2.0	9.9
GS-07	25.0	32.0
ARTCC's		
Full-Performance		
Level Controllers	5.6%	2.8%
GS-11	12.6	21.3
GS-09	15.7	19.7
GS-07	33.0	51.0

Senator Andrews: The preface to Part II (Planned Office and Facility Consolidations) states that "when fully implemented this plan will prevent the waste of over $35 million annually, for a total of over $250 million between now and 1993." If the annual savings are $35 million, the total savings for the 10-year period between 1984 and 1993 would be $350 million. Is the $35 million figure an average and if not, what is the average annual savings for that period?

Response: The $35 million figure represents the annual savings that will begin to accrue when the plan is fully implemented. This figure results from adding the annual savings for each category of action in 1991. The exact figure in that year is $36.15 million.

The savings calculations were conservative in that savings were not considered to begin accruing until the year after the action was initiated. Thus the maximum number of years for which savings were accrued is 9. The average annual savings can be achieved by adding the cumulative annual savings for each type of action, and dividing by 10; that number is: $29.63 million. One-time implementation costs would have to be subtracted from the cumulative total to reach the cost effectiveness numbers shown in the document.

Senator Andrews: How many sets of equipment will be delivered by the end of FY 1984? How many will be operational?

Response: By the end of FY 1984 the contractor will have delivered and installed model 1 equipment at the FAA's technical center and aeronautical center. Assuming a period of 4-6 months to commission these facilities they will be operational in early FY 1985.

Senator Andrews: According to page 4 of the Consolidation Report, you determined in 1982 that there would be a 14-month extension in the delivery of the automation equipment. Why has such a long delay occurred?

Response: E-Systems subcontractor, SDC, fell behind in the early design process in attempts to maximize the utilization of software code developed in Phase I. Design schedules became increasingly compressed. Severe problems developed when the logical, sequential design process was abandoned and critical design activities began occurring in parallel. SDC status reports to E-Systems did not accurately depict progress and E-Systems did not have adequate in-depth surveillance on-site. Until a key design document failed to be delivered, E-Systems was unaware that these problems were so severe. In fact, the depth of SDC problems were not fully realized by E-Systems until an FAA on-site audit was accomplished. This failure to produce combined with recovery activities after the termination of SDC resulted in a 14-month delay in the schedule.

Senator Andrews: By 1986 you plan to have consolidated 104 FSSs into 37 automated flight service stations. Please provide to the Committee a list of the anticipated delivery dates and operational dates for the Model 2 automated equipment at each of those 37 AFSS. Also provide the dates of FSS consolidations if they differ from the delivery operational dates.

Response: The information you have requested is listed in the table below. It is important to note that AFSS locations where consolidations will take place prior to delivery and commissioning of Model 2 equipment will be established utilizing leased Western Union equipment or Model 1 automation equipment. This will insure that the user will receive service equal to or better than that which he/she receives today.

AFSS Site	Model 2 Delivery	Model 2 Commissioning	Consolidation/FY
Prescott AZ	3/88	7/88	Douglas AZ 84 Phoenix AZ 85
S.E. Calif.	7/88	11/88	One in 85 Four in 86
S. Calif	2/86	6/86	One in 85
S.W. Calif	3/88	7/88	One in 85 Two in 86
Denver CO	4/87	8/87	Akron CO 84 Eagle CO 84 LaJunta CO 84 Trinidad CO 85
St. Petersburg FL	3/86	7/86	Melbourne FL 85
Macon GA	11/85	3/86	Albany GA 84 Alma GA 84 Brunswick GA 84 Savannah GA 84 Valdosta GA 84
Kankakee IL	2/86	6/86	
Terre Haute IN	7/85	11/85	Indianapolis IN 84 Lafayette IN 84
Fort Dodge IA	7/88	11/88	Burlington IA 85 Des Moines IA 85 Mason City IA 86 Ottumwa IA 86
Kansas	2/87	6/87	One in 86
Kentucky	5/87	9/87	One in 86

AFSS Site	Model 2 Delivery	Model 2 Commissioning	Consolidation/FY	
DeRidder LA	1/87	5/87	Alexandria LA	85
			Lake Charles LA	85
			New Orleans LA	85
Lansing MI	4/87	8/87	Detroit MI	86
			Saginaw MI	86
Princeton MN	6/86	10/86		
Columbia MO	3/88	7/88	Vichy MO	84
			Kansas City MO	85
			Joplin MO	86
E. Missouri	11/88	3/89	Three in	86
Nebraska	9/88	1/89	Two in	85
			Four in	86
Reno NV	6/86	10/86	Ely NV	84
			Lovelock NV	84
			Las Vegas NV	85
New Jersey	8/86	12/86		
Islip NY	6/87	10/87	Poughkeepsie NY	85
W. NY/N.W. PA	12/86	4/87		
North Carolina	9/86	1/87		
Cleveland OH	1/86	5/86	Youngstown PA	84
			Zanesville OH	84
Dayton OH	11/85	3/86	Columbus OH	84
McAlester OK	5/88	9/88	Hobart OK	84
			Gage OK	85
			Oklahoma City OK	85
			Ponca City OK	85
Oregon	5/86	9/86		
Altoona PA	11/87	3/88	Philipsburg PA	84
			Pittsburg PA	85
E. Pennsylvania	10/86	2/87		
South Carolina	8/86	12/86		
Nashville TN	1/88	5/88	Bristol TN	85
			Crossville TN	85

AFSS Site	Model 2 Delivery	Model 2 Commissioning	Consolidation/FY	
Conroe TX	11/86	3/87	Galveston TX	85
			Houston TX	85
			Palacios TX	85
Fort Worth TX	12/86	4/87	Mineral Wells TX	84
			Childress TX	84
			Dalhart TX	85
Cedar City UT	7/86	11/86	Bryce Canyon UT	84
Leesburg VA	1/88	5/88	Danville VA	84
			Salisbury MD	85
			Roanoke VA	85
Washington	4/86	8/86	One in	85
Green Bay WI	7/85	11/85	Houghton WI	84
			LaCrosse WI	84
			Milwaukee WI	84

Senator Andrews: You indicate that FAA is on target for identifying all 61 automated flight service stations (AFSS) by the close of calendar year 1984. How long after that will consolidation of FSS's be concluded?

Response: The FAA plans to consolidate the 317 existing FSSs into the 61 automated facilities by the end of calendar year 1990.

Senator Andrews: Are you on schedule for commissioning AFFS's?

Response: Yes. We accepted the Bridgeport, CT, AFSS in August and plan to commission the facility in January 1984. We plan to take occupancy of 15 more buildings in calendar year 1984. The Denver, CO, FSS, which was constructed by the FAA, was commissioned this year with Leased Service A Equipment.

Senator Andrews: You estimate implementation costs of $4.4, $5.0, and $8.5 million, respectively, for Fiscal Years 1984-1986. Yet you plan to open 14, 11, and 12 facilities in the same years. Why are implementation costs higher in 1986 with fewer new facilities?

Response: The one-time implementation costs for the FSS program relate only to the specific costs of decommissioning the FSS's shown in the plan, they do not include the costs of establishing the AFSS. For this reason the implementation costs tie to the numbers of FSS's being decommissioned in a given year.

Thus, the $4.4 million ties to the costs of the 26 FSS's being consolidated in FY-1984, the $5.0 million to the 29 slated for FY-1985, and the $8.5 to the 49 planned for FY-1986.

Senator Andrews: Why do you shown no implementation costs beyond 1986?

Response: The one-time implementation costs for the FSS program are not shown beyond FY 86 because the plan only includes the costs of decommissioning those FSS's shown in the plan. The last FSS decommissionings in the plan occur in FY 86 and the estimated one time costs associated with those actions are shown in that year. We believe that we have accurately captured the one-time costs for the actions shown in the plan.

Senator Andrews: With this trend, what implementation costs can Congress anticipate for the future as the remaining 149 FSS's are closed?

Response: The one-time implementation costs shown for the FSS program were derived from the regional staff studies for the FY-1984 actions, which were primarily smaller flight service stations. As the remainder of the FSS consolidations involve larger facilities, the implementation costs can be expected to be higher, and closer to the FAA's budget estimates.

Senator Andrews: Is the "net cost effectiveness" figure of $94 million attributable primarily to reductions in personnel?

Response: In the FSS modernization and consolidation program 93% of the savings figure is attributable to personnel savings. If one-time costs are subtracted from that figure to reach the "net cost effectiveness" figure, 100% of the net cost effectiveness is attributable to personnel savings.

FSS BUDGET LEVELS

Senator Andrews: The Fiscal Year 1984 Bill funded the FAA Facilities and Equipment account at $750 million. The FAA was directed to provide by November 1 the allocations within that account. Do you have that report today? How much will be spent on Flight Service Stations?

Response: The report is not available today. However, within the $750 million appropriated, $102 million is provided for programs identified in the budget under the Flight Service Facilities budget activity.

Senator Andrews: What is the relationship between total FSS spending and the $4.43 million your consolidation report says is necessary for implementation costs? FAA informed the Congress earlier this year that the FSS Modernization Program would require $71.3 million in FY 84. What else are you spending the money on?

Response: The $4.43M identified in the consolidation report is for the consolidation of 26 FSS's in FY 1984.

The $71.3M requested for FY 1984 included $31M for automation equipment, $15M for the establishment of AFSS buildings and $25.3M for consolidation of FSS's. Since the requested level was not appropriated, the FAA will only receive the $31M automation equipment funds and $5.3M of the AFSS building funds. Therefore, the consolidations identified in FY 1984 will be accomplished with FY 1983 funds originally intended for closures that were subsequently postponed by the Congress.

Senator Andrews: What have we spent since FY-1981 on FSS improvements?

Response: Since FY-1981, approximately $828,000 has been spent on various types of modernization and improvement projects which include weather observation equipment, specialist consoles, and some rehabilitation.

Senator Andrews: Will the past provision of FSS modernization funds affect the selection of automated FSS sites?

Response: Past provision of funds will not affect the selection of AFSS sites.

Senator Andrews: The Senate report accompanying the fiscal year 1984 bill directed FAA and the Secretary to submit two reports by November 1: (1) history and analysis of the Flight Service Station workforce, and (2) a review and analysis of the Flight Service Station programs (in response to certain criticisms by National Transportation Safety Board, GAO, and the President's Private Sector Survey on Cost Control). Are you able to make those reports available today?

Response: We believe the first part of your question refers to the requirement to submit a report on the history and analysis of the air carrier operations inspector workforce rather than the Flight Service Station workforce. That report is currently in preparation and will be submitted shortly. In response to the second part of your question, the report "A Report on the Flight Service Station Program," prepared pursuant to Senate Appropriations Committee Report No. 98-179, will be transmitted by the Secretary.

Senator Andrews: If not, what are FAA's major conclusions in response to these organizations' concerns, such as:

--Pilots flying VFR because of inability to reach a Flight Service Station

--Degree of acceptance among general aviation pilots for automated services

--Lack of a comprehensive, convincing plan on consolidation?

Response: The report, "A Report on the Flight Service Station Program," is a comprehensive review and analysis of the Flight Service Station program in response to Senate Appropriations Committee Report No. 98-179.

With regard to your concern about pilot difficulty in reaching a Flight Service Station, the record is clear and unequivocal: the aviation system today is as safe or safer than it was prior to the illegal controller strike of August 1981. Providers of services, either in private industry or in government, cannot automatically staff to meet peak anticipated demands.

With regard to the expected acceptance of automated services by general aviation pilots, the Federal Aviation Administration is following a wide-spread trend in many industries toward automation of service delivery systems. All available information concerning the introduction of automated service systems clearly suggests that a high degree of acceptance and use of automated flight services will in fact occur among general aviation pilots.

With regard to your concern about the adequacy of the FSS plan, the FAA believes the plan is both feasible and beneficial. The President's Private Sector Survey on Cost Control, "Task Force Report on the Department of Transportation (May 2, 1983)," was clearly supportive of FAA's program of FSS consolidation. It urged that the consolidation schedule be accelerated.

28-592 O - 84 - 4

Other findings and conclusions of our report, "A Report on the Flight Service Station Program" are:

An evaluation of a series of sensitivity analyses (considering the rate of growth in demand; staffing growth to meet increased demand for services; and the level of user acceptance of the automated system) clearly indicates cost savings resulting from implementation of the FSS consolidation/automation program. Moreover, an evaluation of the potential effects of errors in individual assumptions as well as evaluation of the potential impacts of several errors occurring simultaneously clearly shows the significant probability of savings in the implementation of the FSS consolidation/automation program.

Low productivity facilities exist because the demand for services is low at those facilities, not because FAA employees are nonproductive. By combining and automating facilities and directing demand to these consolidated facilities, the same number of employees can provide a greater amount of service than the sum of the individual facilities prior to consolidation.

FAA has maintained also, from the onset, a progressive attitude regarding its planning for the FSS Modernization Program. This is evidenced by the FSS Master Plan of January 1978, the Master Plan Addendum of March 1980 and the most recent consolidation plan submitted to the Congress October 1, 1983.

Additional planning is underway regarding national guidelines for transition to the AFSS's, individual transition plans for each of the 61 AFSS's, a comprehensive implementation plan and a complete test plan for the acceptance of the Flight Service Automation Systems, Models 1 and 2.

The FAA is also involved in activities to make FSS specialists and pilots aware of the various activities associated with the modernization program. This information will be in the form of both printed and video tape material.

Senator Andrews: What arrangements have you made with the National Weather Service to ensure that it will continue observations at Flight Service Stations scheduled for closure?

Response: No arrangements have been made with the National Weather Service, nor are any contemplated. At the 246 locations where surface observations are taken by FAA Flight Service Station specialists, there is no National Weather Service involvement.

The FAA intends to replace the human observations at these locations with automated observations which will meet aviation's safety requirements. If an automated system is not operational by the time a particular station is to be closed, contract observers will be used as an interim measure.

Senator Andrews: What is the relationship between the recovery of the air traffic control system and your consolidation activities? To what extent have (and will) the consolidation activities enhanced or detracted from the recovery effort?

Response: As the FAA progresses in its rebuilding efforts and personnel complete their comprehensive training programs, facilities are being brought up to normal staffing levels and those that were closed temporarily and meet retention criteria are being reopened. The consolidation activities planned will allow for the optimum alignment of the limited work force and improve productivity while ensuring an efficient and cost effective operation now and in the future.

Senator Andrews: The FAA has set up a Human Relations Policy Committee. Has this Committee had input in consolidation activities, or are they separate?

Response: The Human Relations Policy Committee is composed of the Deputy Administrator and various Associate Administrators and Regional Directors. These people have had input to the consolidation activities in their managerial capacity. The FAA is and will remain committed to our human relations program and will always consider any impact that these consolidations will have on FAA employees. During the implementation phase of the proposed consolidations, intensive efforts will be made to insure the minimum of disruption to employees' lives.

Senator Andrews: Is there not the liklihood that senior flight service station personnel will be less able or likely to relocate? What happens in that event to the level of services provided, and increased training costs?

Response: There is the possibility that some of the existing personnel will elect not to relocate to the new facility, however, FAA consolidations will occur gradually over a 6 year period. During this period, all affected employees will be offered a position at an AFSS at the same grade or higher. For those employees required to relocate, there will, of course, be personal and financial considerations which will influence the decision to accept or decline a position. It is difficult to estimate the exact percentage, however, based on the information we have at present, we anticipate that some specialists may elect not to relocate. It is reasonable to assume that individuals at or near retirement age are more likely not to relocate than younger employees.

Since this loss of personnel will be spread over at least a 6 year period, automation will have eliminated many of our manual operations. In addition, consolidation of employees and workload will result in increased employee production. For these reasons, FSS staffing requirements are projected to decrease after 1985. Accordingly, the level of services provided during the transition period, as well as after final consolidation, will be the same or better than at present. We do not anticipate any significant increase in training costs.

Senator Andrews: Please review the steps you undertake with regard to tower discontinuance decisions. For example, you first undertake a "Phase I" mathematical review based on frequency of different types of operations. What are these operations and how do you weight them? What certainty can you give the Committee that you have given proper balance to, say, military operations? How current are your annual operation counts?

Response: Three separate analyses are conducted before a decision is made to discontinue a tower. First, all towers are periodically reviewed by means of a simple 'rule of thumb'--the Phase I test--to determine whether they are candidates for decommissioning. Next a formal cost-benefit analysis is conducted for each potential decommission (Phase II). Last, a qualitative review is made of ancillary factors, such as weather, topography, military requirements, and impact on adjacent facilities.

The Phase I criteria used to identify possible towers for discontinuance is listed as follows. Let

AC = Air Carrier Operations
AT = Air Taxi Operations
GAI = General Aviation Itinerant Operations
GAL = General Aviation Local Operations
MI = Military Itinerant Operations
ML = Military Local Operations

Then

$$\frac{AC}{15{,}000} + \frac{AT}{40{,}000} + \frac{GAI}{75{,}000} + \frac{GAL}{125{,}000} + \frac{MI}{20{,}000} + \frac{ML}{35{,}000}$$

is the Phase I ratio sum for tower discontinuance. If this sum drops below one for three consecutive reporting periods, the tower becomes a potential discontinuance candidate and a Phase II benefit-cost analysis is performed.

The Phase I test was developed from detailed benefit-cost relationships as follows: For each aircraft class, assume that some hypothetical airport's activity consists of only this class of operations and furthermore that activity is growing at the national average rate. Then, using national average costs and benefit values, the number of operations which just brings the benefit/cost ratio to 1.0 is determined and becomes the denominator for that class in the Phase I test. A more thorough discussion of the mathematical relationship between the Phase I and benefit-cost ratio tests is provided in Chapter VI of the tower criteria report, "Establishment and Discontinuance Criteria for Airport Traffic Control Towers" (FAA-APO-83-2).

Activity counts are available through FY 1983.

Senator Andrews: Then you apply your "Phase II" criteria, which associates a present value to continue a tower relative to benefits. Explain that process please.

Response: Once a tower discontinuance candidate has been identified by means of Phase I criteria, a cost-benefit analysis of future tower operation is conducted for the candidate site. If estimated benefits exceed costs, tower operation continues, if tower costs exceed benefits, the tower remains a candidate for discontinuance. This site specific cost-benefit analysis is the "Phase II" criteria. Procedures for conducting "Phase II" detailed benefit-cost analyses are documented in FAA report number FAA-APO-83-2, "Establishment and Discontinuance Criteria for Airport Traffic Control Towers." Tower safety benefits, from prevented collisions between aircraft and other prevented accidents, are reduced fatalities, injuries, and property losses; tower efficiency benefits, from reduced flying time, are saved operating expenses and passengers' time. These benefits are quantified according to the procedures given in FAA-APO-83-2 and are compared with annual tower costs for staffing, maintenance, equipment, supplies, and leased services over a 15-year period. Aviation activity, forecasts, costs, and economic values for the particular location are used in the benefit-cost analysis to the extent that they are available.

Senator Andrews: After all that objective analysis, what analysis is done of a tower site itself such as terrain and weather? Are safety considerations given the utmost priority in decisions to close a tower, or the need to establish a new one?

Response: An important part of our criteria is the site-specific analysis which includes factors such as:

a. Assurance that factors unique to the location, such as weather and topography, are properly accounted for.

b. Potential use of the site to provide capacity and training relief for a hub airport.

c. Impact on adjacent facilities.

d. Operational factors which cannot otherwise be accounted for by the benefit-cost analysis.

e. The possibility of significant changes in traffic activity attributable to unique local conditions.

f. Military requirements.

These factors along with others are included in the in-depth staff studies which are prepared by the region that has operational jurisdiction over the facility identified since it is the most familiar with the site-specifics of each location. Additionally, during this phase of the review, coordination is effected with the aviation community, local and state officials, members of Congress, and other interested parties advising them of any proposed action and requesting their comments. Once this compilation of data and

comments is completed, it is forwarded to the Washington Headquarters where it is reviewed in-depth and coordinated with all offices before a recommendation is submitted for approval.

Consistent with the FAA's mission, serious consideration is given to safety and service prior to any decision being made to discontinue or establish air traffic services at any airport.

Senator Andrews: Who performs a tower controller's function once FAA discontinues a tower? Won't the ability of air carrier personnel to deal with this void vary from general aviation pilots to military or other more experienced pilots?

Response: Tower closures do have a slightly varied effect on air carrier and general aviation operations. General aviation pilots, for the most part, routinely operate in and out of airports without towers and are not affected by closures. Operating procedures at airports without a tower are published in Advisory Circulars 90-66 and 90-42C.

Air carriers, while not routinely operating at airports without a tower, are authorized to do so with some provisos, and follow the same recommended procedures. This authorization is accomplished via the air carrier's operations specifications which require that an alternate means be established to provide the air carrier flights with certain information; i.e., reported traffic, active runway, wind direction, and velocity. This information may be provided by a Flight Service Station, UNICOM, or an airline air/ground radio facility.

Senator Andrews: Of the FSS's which may pick up some tower responsibilities, how many will eventually be consolidated or closed once a decision is made on the site of the automated FSS?

Response: FSSs do not provide the same air traffic control service as a control tower does (i.e. control and separation of aircraft). Provisions will be made to ensure that services assumed by the FSS on the airport, such as NAVAID monitoring and weather observations are continued if the FSS is consolidated and the control tower has been closed. Of the 51 control tower candidates, only 19 also have a FSS on the airport. Of these 19 FSS/ATCT locations, one has been selected as an AFSS site, 5 other FSS's are to be consolidated into a known AFSS site at another airport, and the 13 remaining FSS's do not have an AFSS site selected yet.

Senator Andrews: Although all the AFSS sites have not been selected, please estimate how many airports currently serviced by Air Traffic Control Tower facilities will have neither an operational tower or FSS's on site after 1986? Provide for the record a list of the airports that will fall into this category.

Response: There are 432 airports that have FAA control towers and of these, 51 have towers identified as candidates or potential candidates for discontinuance thru FY 1986. At these 51 locations only 19 have both a control tower and a FSS. One of these 19 ATCT/FSS locations has been identified as an AFSS site, 13 ATCT/FSS locations are in Flight Plan Areas where the AFSS site has not been selected, and 5 ATCT/FSS locations have an AFSS site selected but it is located at another airport. The 19 locations having both a control tower and a FSS are listed below along with the AFSS site if known.

Pine Bluff, AR	AFSS site not selected
Imperial, CA	AFSS site not selected
Marysville, CA	AFSS site not selected
Brunswick, GA	Macon, GA AFSS
Valdosta, GA	Macon, GA AFSS
*Idaho Falls, ID	AFSS site not selected
Paducah, KY	AFSS site not selected
*Alexandria, LA	DeRidder, LA AFSS
Cape Girardeau, MO	AFSS site not selected
*Columbia, MO	AFSS site
*Joplin, MO	Columbia, MO AFSS
*Jackson, MI	Lansing, MI AFSS
*Lebanon, NH	AFSS site not selected
Hickory, NC	AFSS site not selected
New Bern, NC	AFSS site not selected
Minot, ND	AFSS site not selected
*Florence, SC	AFSS site not selected
Myrtle Beach, SC	AFSS site not selected
*Morgantown, WV	AFSS site not selected

*These control towers have only been identified as potential candidates for discontinuance.

Senator Andrews: Why does the April 1983 NAS Plan say that 36 airport traffic control towers will be closed between 1981 - 2000 when the consolidation plan proposes far more?

Response: The April 1983 NAS Plan showed 36 control towers for closure between 1983 and 1984. The plan did not indicate that it was an ongoing program since future candidates had not been identified pending the revision of the tower establishment/discontinuance criteria. Now that the criteria has been revised and future potential candidates have been identified, the NAS plan is being updated to reflect that it is an ongoing program. Annual review of all control towers and identification of facilities not meeting requirements are required by the criteria.

Senator Andrews: To what extent is the closure information in the October consolidation report different or more current than last spring's NAS Plan?

Response: The information in the October consolidation report is more current than last spring's NAS Plan. The NAS Plan is being updated to reflect the closure program which has been reevaluated based on the recently revised tower establishment/discontinuance criteria and to indicate that this is an ongoing program with future candidates to be identified through the annual review process required in the criteria.

CURRENTLY - CLOSED TOWERS

Senator Andrews: Your October report states that 35 of the decommission-candidate towers have been temporarily closed as a result of the air traffic controllers' strike. You further conclude that no compromise of air safety has resulted. Does this mean that there have been no incidents or accidents at those sites?

Response: The following is a listing, by location, of the 35 towers in question which shows 120 accidents and incidents that have occurred since August 1981 at or in the vicinity of those towers. Our analysis of the cause and circumstances surrounding each accident or incident indicates that only 10 might conceivably have been avoided by the presence of a functioning tower. In those 10 incidents, no fatalities resulted.

STATE	CITY (AIRPORT)	G/A ACCIDENTS	G/A INCIDENTS	A/C INCIDENTS
AR	Pine Bluff	2	2	-
AR	Marion (West Memphis)	-	-	-
AR	Hot Springs	1	1	-
AZ	Flagstaff	13	-	-
CA	Fresno	1	1	-
CA	Marysville	2	-	-
CA	Imperial	2	3	-
FL	Miami (Dade-Collier)	-	-	-
GA	Athens	3	1	-
GA	St. Simon Island	4	-	-
GA	Valdosta	2	-	-
IL	Danville	4	2	-
IL	Galesburg	5	-	-
KY	Paducah	2	-	1
KY	Owensboro	2	1	-
MI	Benton Harbor	1	-	-
MO	Cape Girardeau	4	2	-
NC	New Bern	-	3	-
NC	Hickory	-	1	-
NM	Hobbs	3	2	-
OH	Akron	-	4	1
OK	Ardmore	4	-	-
OR	Pendleton	-	-	-
PR	Mayaguez	-	1	-
PR	Mercedita (Ponce)	1	-	-

STATE	CITY (AIRPORT)	G/A ACCIDENTS	G/A INCIDENTS	A/C INCIDENTS
SC	Spartanburg	1	1	-
SC	Myrtle Beach	3	-	-
TN	Knoxville (Dtn)	-	1	-
TX	Plainview	4	1	-
TX	Laredo	3	7	-
WV	Lewisburg	-	-	-
CA	Merced	2	3	-
IL	Marion	2	1	-
CA	Chico	5	2	-
MS	Greenville	-	2	-
		76	42	2

Senator Andrews: How many towers were picked up by state, local, or community groups and maintained without Federal support?

Response: Three temporarily closed contol towers are now being operated by local authorities without Federal assistance. They are Hobbs, New Mexico, Enid, Oklahoma, and Ardmore, Oklahoma. Two other control towers which had been closed temporarily were picked up initially by the local authorities without Federal assistance but are now being operated as contract towers in the FAA's pilot program for contractual services with Federal assistance as directed by Congress. They are Owensboro, Kentucky, and Farmington, New Mexico. Additionally, Congress has directed the FAA to provide Federal assistance for the operation and maintenance of the Ardmore, Oklahoma Control Tower in the amount of $50,000.

Senator Andrews: How does the FAA ensure that non-Federal towers perform up to FAA standards?

Response: The FAA's regional offices perform periodic checks at non-Federal control towers to ensure that the requirements contained in Federal Aviation Regulations Part 65, subpart B and FAA Order 7220.1A, Certification and Rating Procedures, are met.

Senator Andrews: Are these towers more cost-effective when run by city or state, than run by the Federal government?

Response: Non-Federal control towers normally do not cost as much to operate or maintain as it does a Federal facility. The lower costs are due to lower salary scales and overhead costs. Also they are normally staffed with fewer personnel and maintenance functions may be performed by one person who is assigned to maintain several facilities.

TOWER CONTRACTING - OUT PILOT PROJECT

Senator Andrews: We understand that you have underway a pilot project to explore the benefits of contracting out for tower operations. Please outline what locales are affected. What liklihood is there that such a pilot program will be undertaken, and when?

Response: The FAA has already initiated a pilot program for contractual control tower services. This project is to determine if such a program would be operationally feasible and effective and cost beneficial. A study paper on this program should be in coordination in the March/April 1984 time frame with a determination made by the end of FY 1984.

The FAA's pilot program for contractual control tower services includes 5 facilities. Two of the facilities are now operating as FAA Contract Towers as directed by Congress and they are Farmington, NM, and Owensboro, KY. The other three facilities are expected to be in operation as FAA Contract Towers in early 1984. They are Topeka (Philip Billard), KS, Merced, CA, and Cleveland (Cuyahoga County), OH.

Senator Andrews: The savings you project for the TRACON/ARTCC Consolidation activities is $1 million annually after 1986 implementation . This is relatively small, since implementation costs for FY 84-86 total $21 million. Please elaborate on this and explain what "one-time costs" you are avoiding during FY 84-86 totalling over $17 million.

Response: The $21 million one-time implementation costs average $3 million per location and includes the relocation and remoting of equipment, leased communication costs, and personnel moves at some locations. If the TRACON/ARTCC consolidations do not take place, it is probable that most of the identified TRACON buildings will require substantial modernization/expansion or complete replacement. These actions would be very costly and represent the actual $16.3 million cost avoidance figure.

Recent advances in technology, plus other improvements which are in the planning stages, will allow the air traffic control system of the future to become a totally integrated system of terminal radar approach/departure control and en route control. The consolidation of the TRACON functions into adjacent centers will improve service, increase productivity, and reduce operating costs while providing the needed transition to the new environment.

Senator Andrews: Have you purchased new radar equipment in order to broaden geographical coverage?

Response: No new radar equipment has been purchased for the purpose of broadening the geographical coverage during the TRACON/ARTCC consolidation. Some new solid-state radar equipment is being obtained to replace obsolete vacuum tube equipment, but this is being done primarily to provide improved aircraft detection and terminal weather information, and to reduce maintenance requirements. For the TRACON/ARTCC consolidation, the existing geographical coverages of the radars will just be combined in a different manner than was done previously.

Senator Andrews: To what extent will pilots be aware of these consolidated control facilities?

Response: The TRACON/ARTCC consolidations will have no adverse impact on the users. Control instructions issued and services provided to pilots from the radar control rooms will not change, they will only be issued from a different location. If a control tower cab is associated with the radar control room, it will remain at that airport as long as it meets retention criteria. These consolidations will improve the efficiency and effectiveness of the operation which in turn will improve services provided to the users.

Senator Andrews: 43 positions are saved. How does that occur if you are expanding approximately the same number of facilities as you are closing? Are the personnel or skill requirements significantly different once TRACON/ARTCC consolidation is undertaken?

Response: The position savings will occur as administrative and overhead positions and functions are combined with those at the gaining ARTCC and some operational positions are combined. The personnel or skill requirements are not significantly different since both a TRACON and an ARTCC provide control instructions using radar. This consolidated facility concept will utilize technological advances already in place and will provide for a more effective and efficient operation.

Senator Andrews: One aspect of your consolidation plan is the facilities sector office realignment, FAA's maintenance organization. Your plan calls for getting the number of sector offices down to 86 by the end of 1986 (from 115 in FY-1981). Does the consolidation plan, then, reflect the last phase of actions associated with this aspect of the NAS Plan?

Response: No, it does not. Further field staffing reductions will occur throughout the balance of the decade as a result of continued vacuum tube equipment replacement and full RMM implementation. As a result of that, we expect that further opportunities will develop for more sector office consolidations by the 1990 period.

Senator Andrews: What steps did you take to get from 115 sectors to the 94 you must have now? How many facilities were expanded?

Response: For each consolidation that has taken place, an analysis was prepared by the region, reviewed at headquarters levels by FAA program offices having an interest, and approved by the Administrator. As those studies were approved over time, the FAA initiated appropriate coordination and consultation with external sources such as union representatives, Congress staffs, etc. For the Sector Office consolidations that have been implemented up to now, nearly all of these involved expansion of an already existing Sector Office.

Senator Andrews: What specific efficiencies have resulted? Are the savings associated with those previous sector office reductions reflected in the consolidation plan? If not, do the savings already realized support the annual savings estimates you provide of $1.18 million?

Response: The purpose of reducing the number of sectors through consolidation is twofold. The first is to achieve greater efficiency by having enough support personnel at each sector to implement successfully such elements of the 80's Maintenance Program as computer based instruction (CBI) and remote maintenance monitoring (RMM). The second is to reduce the total number of support personnel. The savings identified in the plan are related only to the sector consolidations shown in the plan. Savings from previous consolidations exceed $9 million annually and are consistent with the savings identified in the report for planned consolidations.

Senator Andrews: Why has this aspect of the NAS Plan moved along so early? Are you using remote maintenance monitoring equipment now?

Response: Sector office consolidations have been implemented over the past several years. These were responsive not only to the need to prepare for future NAS Plan implementation but also to make our field offices more efficient in terms of a declining and geographically dispersed work force. During the period FY 1980-84, field staffing authorizations were reduced by approximately 1700 positions. Our sector office consolidations are directed at achieving a better balance of management/working staff ratio in today's environment, as well as preparing for the future.

The maintenance processor system is being installed now in our ARTCC's and will continue through the middle of FY-1984. Limited RMM capability is expected to come on line later this fiscal year.

Senator Andrews: Why do you feel it prudent to make the reductions in management positions associated with Airway Facilities so early in the NAS implementation?

Response: The consolidation of these sector offices can be accomplished now. We have a wide base of experience to support our belief that savings in management and overhead support positions can be realized without any derogation of our mission responsibilities.

Senator Andrews: Won't the conversion to computer-based instruction (P. I-31, NAS Plan 4/83) require near-term dependence on your management and administrative personnel?

Response: Yes, the conversion to computer-based instruction will require a greater dependence on sector management/administrative personnel. The sector consolidations are directly responsive to that need. As a result of these, more support staffing will be available to conduct this type of training thereby making the sectors more self-sufficient.

Senator Andrews: The consolidation plan includes no proposed regional consolidation. How many regions have been consolidated? Have you no such plans during the 3-year period covered by this October report?

Response: In 1981 the FAA consolidated from eleven to nine regional headquarters.

The Cabinet Council on Management and Administration's Federal Field Structure Study and the President's Private Sector Survey on Cost Control have proposed a reduction in the number of federal regions. Any further action will be dependent upon this initiative.

Senator Andrews: Are you still assessing regional reorganization proposals? When might FAA conclude such deliberations and provide notice to Congress?

Response: The President's Private Sector Survey on Cost Control and the Cabinet Council on Management and Administration's Federal Field Structure Study have taken the initiative in this area. There are no current FAA activities on regional reorganization proposals.

Senator Andrews: Please provide for the Committee a detailed explanation of how cost effectiveness was calculated for each type of facility discussed in the report.

Response: Certain factors are common to all the cost effectiveness calculations: (1) constant 1983 dollars are assumed throughout the calculations; (2) staff studies exist only for FY 84 actions, all values for FY 85 and FY 86 actions are based on the appropriate category average for FY 84; (3) one-time implementation costs are charged to the year in which actions begin, savings are shown accruing in the year following the one in which position reductions are taken. A detailed explanation for each type of facility follows.

The regions submitted staff studies on all proposed FY 84 tower closings. These studies considered one-time costs to decommission a tower (including the cost of transferring any personnel to new locations and the cost of remoting necessary communications lines), personnel savings, and other miscellaneous recurring costs/savings. Also considered were one time cost avoidance factors at locations that had been temporarily closed, i.e. the additional costs to reopen the tower. These figures were used to arrive at a first year net savings. The FY 85-86 actions were based on the average one-time implementation costs and annual savings of the FY 84 actions. After one time costs and one time cost avoidances were subtracted, a recurring annual savings was established and applied to the remaining years of the period.

The Western-Pacific Region submitted a study for the FY 84 consolidation of the Coast (Santa Ana) TRACON with the Los Angeles ARTCC. This study provided the one-time costs and the annual savings for the first year and for the second year and beyond. Also considered was the cost avoidance associated with the substantial expansion/modernization or complete replacement of the identified TRACON buildings if the consolidations do not take place. The net first year cost was subtracted from the second year annual savings and cumulated for the remaining eight years to develop the cumulative 10 year cost effectiveness. Cost estimates were provided for the FY 85-86 actions to arrive at the average one-time cost, cost avoidance, and the annual cost savings for each location. Again, the same methodology was used to calculate the 10 year cost effectiveness.

The automated flight service station cost effectiveness figures were calculated by using the staff studies for the FY-84 decommissionings to develop an average one-time implementation cost and an average recurring annual savings. These averages were then applied to the FY 85-86 actions and the data accumulated through 1993. The published cost effectiveness figure includes the costs to decommission the FSS's (or number of FSS's if AFSS site is unknown) shown in the plan, and the recurring savings generated from the consolidation. One-time implementation costs include the costs to reterminate communications and maintenance monitoring equipment, the costs to put the building back into the condition it was in when leased, and the costs to relocate personnel. Recurring costs/savings include salary savings, savings/costs for leased space and utilities, leased communications savings/costs, and the costs to provide weather observations at sites which currently have FAA provided observations.

The cost effectiveness of airway facility sector office realignments were calculated in a similar manner to those mentioned above. Sector offices are simply being reduced to sector field offices and unnecessary overhead positions are being eliminated. The primary recurring savings are salaries, but rents/utilities (where applicable) and other miscellaneous savings were included. Recurring costs include increased travel expenses and telehone service. The one-time costs of moving employees, moving government property and installing telephones were included.

For aviation standards offices the cost effectiveness was calculated in a similar manner. Since all of these actions occur in FY 84 they are all based on regional staff studies. One time costs are charged in FY 84 and recurring savings (primarily from salaries) begin in FY 85. Net recurring savings are accumulated through 1993 to total to the listed cost effectiveness.

Senator Andrews: On page 1 of Part 2 (Listing of FY 84-86 Planned field Office and Facility Consolidation Activity), you state that a facility which gains positions and or functions in more than one fiscal year is listed separately for each fiscal year in which it occurs. How many facilities fall into this category and how does duplicate listing affect the display of cost effectiveness data?

Response: There are 20 AFSS's and one ARTCC which gain functions or positions in more than one Fiscal Year. "Duplicate listing" has no impact on the cost effectiveness figures shown because the cost effectiveness figures are generated from the savings coming from the facilities being consolidated/closed, and those are only counted once, and only listed once.

Senator Andrews: On Page A-1 you list two Southeast California Automated Flight Service Stations (AFSS) which will gain functions in fiscal years 1985 and 1986. Five Flight Service Stations (FSS) in the area will be consolidated into those two AFSSs. However, there are currently six FSSs in that area. Does this mean that at least one or both of the existing FAA locations will be selected to house the automated equipment?

Response: Only one AFSS is planned for the Southeast California flight plan area. The actions listed on page A-1 indicate that 1 FSS will be consolidated in fiscal year (FY) 1985, 4 in FY-1986 . The sixth FSS will be closed in the out years. The AFSS site has not been identified for Southeast California therefore all 6 existing FSSs are considered to be candidates for the 5 consolidations that will take place in FY-1985 and FY-1986.

Senator Andrews: We understand that in some cases the AFSS will be located at the same site as a closed FSS. Will the automated equipment be housed in the existing building or will a new facility be built, and how many sites will require a new building?

Response: Of the 25 AFSS locations already selected, only 3 (Cleveland, Dayton, OH, and Reno, NV) will result in renovation/expansion of existing buildings. As to future selections, we expect this trend to continue with the majority of the AFSS faclities being new construction.

Senator Andrews: Between 1984 and 1986, you plan to close 104 FSS's and open 37 AFSS's. What is the average cost of one closure (including transfer of personnel and equipment) and of one opening?

Response: The average cost of closing one FSS (including transfer of personnel and equipment) as established by the 26 staff studies for the FY-84 actions, is $173,000. The estimated cost to equip and open a leased site AFSS ranges between $700,000 and $900,000. The cost of equipping an AFSS was not included in the facility consolidation plan because it has been previously included in the National Airspace Plan.

ACTIONS BY STATE

Senator Andrews: Please list the number and type of air traffic control facilities that currently exist in the following states: Alabama, Connecticut, Massachusetts, Maine, Rhode Island, South Dakota, and Vermont and explain why no actions are scheduled in these states.

Response: The air traffic control facilities in the listed states are:

Alabama

Anniston FSS
Birmingham FSS
Birmingham ATCT
Dothan FSS
Dothan ATCT
Huntsville ATCT
Mobile FSS
Mobile ATCT
Montgomery FSS
Montgomery ATCT
Muscle Shoals FSS
Tuscaloosa FSS
Tuscaloosa ATCT

None of the control towers in Alabama meet the discontinuance criteria. The FSS's are not listed in the 3 year plan since their consolidation will occur after 1986.

Connecticut

Bridgeport ATCT
Danbury ATCT
Groton ATCT
Hartford ATCT
New Haven ATCT
Windsor Locks FSS
Windsor Locks ATCT

None of the control towers in Connecticut meet the discontinuance criteria. The consolidation of the Windsor Locks FSS into the Bridgeport AFSS was contained in the FAA's anamoly letter to the committee dated September 12 thus it was not included in the plan.

Massachusetts

Bedford ATCT
Beverly ATCT
Boston FSS
Boston ATCT
Falmouth RAPCON
Hyannis ATCT
Lawrence ATCT
Martha's Vineyard ATCT
Nantucket ATCT
New Bedford ATCT
Norwood ATCT
Westfield ATCT
Worcester ATCT

None of the control towers in Massachusetts meet the discontinuance criteria except Martha's Vineyard. This ATCT is operated on a seasonal basis only (May-Sept). The consolidation of the Boston FSS into the Bridgeport AFSS was contained in the FAA's anamoly letter to the committee dated September 12 thus it was not included in the plan.

Maine

Augusta FSS
Bangor FSS
Bangor ATCT
Houlton FSS
Portland ATCT

None of the control towers in Maine meet the discontinuance criteria. The FSS's are not listed in the 3 year plan since their consolidation will occur after 1986.

Rhode Island

Providence ATCT
Quonset Point TRACON

None of the control towers in Rhode Island meet the discontinuance criteria. There is no FSS in Rhode Island but the state is served by the Boston FSS.

South Dakota

Aberdeen FSS
Huron FSS
Pierre FSS
Rapid City FSS
Rapid City ATCT
Souix Falls ATCT
Watertown FSS

None of the control towers in South Dakota meet the discontinuance criteria. The FSS's are not listed in the 3 year plan since their consolidation will occur after 1986.

Vermont

Burlington ATCT
Montpelier FSS

The control tower in Vermont does not meet discontinuance criteria. The FSS is not listed in the 3 year plan since its consolidation will occur after 1986.

28-592 O - 84 - 5

Senator Andrews: The second level of FAA's Flight Service Station automation program will develop a so-called Model 2 to provide weather graphics capabilities. Why does FAA need to develop a Model 2 system when existing weather radar technologies such as FAA's own Radar Remote Weather Display System and the Department of Commerce's Geostationery Orbiting Environmental Satellite System (GDES), currently provides graphics weather information.

Response: Model 2 does not replace equipment like the Remote Radar Weather Display System (RRWDS) and the Geostationery Operational Environmental Satellite (GOES) which were designed to detect and transmit specific types of weather phenomena. RRWDS and GOES are but 2 of the vast number of weather products (graphic and alphanumeric) received by Model 2 for use by FSS specialists and pilots for the purpose of preflight planning and assistance to aircraft in flight.

Senator Andrews: FAA expects that Flight Service Station self-briefing capabilities will satisfy the demand of 70 percent of the pilots. A February 1983 GAO report ("FAA's Plan to improve the Air Traffic Control System: A Step in the Right Direction But Improvements and Better Coordination Are Needed," GAO/AFMD-83-34, 1/16/83) questioned whether this level of self-service can be attained. How did FAA arrive at a 70 percent user acceptance rate?

Response: The 70 percent user acceptance rate was projected based upon Federal Aviation Administration (FAA) sponsored laboratory and field evaluations of FAA developed computer and push button direct user access systems. All of the evaluations concluded that: (1) the operating procedures for the direct access systems proposed for inclusion in the FSS Modernization Plan are simple enough for most pilots to master readily; (2) they frequently provide the pilot a more timely means for completing pre-flight briefings, and (3) the public reaction to the proposed system has been highly favorable. The most comprehensive assessment of user acceptance of these systems was a quantitative survey of user response to the implementation, on a demonstration basis, of a Voice Response System (VRS) for provision of a number of pre-flight weather products in the Washington, D.C. area. Of total respondents to the user survey, 93 percent indicated the service was suitable for widespread public use either "as is" or with "minor changes desirable."

Moreover, all available information concerning the introduction of similar automated service systems clearly shows that a high degree of acceptance and use of automated flight services will in fact occur among general aviation pilots. An example is the rapid growth in the banking industry of Automated Teller Machines from just under 2,000 in 1973 to almost 36,000 by 1982. These automated service delivery systems are very similar in format and user skill requirements to the push button telephone Voice Response System proposed for use in the FSS Modernization Plan. Another indicator of public acceptance of automated service is the phenomenal growth in the use of personal computers. Over 600,000 personal computers were found in U.S. households last year and that number is forecast to jump to 1 million by the end of 1983, over 4 million by 1988, and nearly 7 million by 1990.

Airport Traffic Control Towers

Senator Andrews: In the GAO report dated June 1, 1981, 66 towers were identified as potential candidates for closure. Forty-six of the 66 towers are included in your listing of potential tower closures. What is the disposition of the remaining 20 towers?

-- Number closed?
-- Number reclassified?
-- Number not included in FAA study and why?

Response: Of the 66 towers identified in the GAO report, 44 not 46 have been identified in the Facility Consolidation Plan. The number in our report is a typographical error and should be corrected to say 44. The disposition of the remaining 22 locations are as follows:

— Number closed - Of the 22 locations, 7 are closed temporarily (6 scheduled for reopening and 1 being reviewed since it is a borderline candidate).

-- Number reclassified - 14 of the 22 candidates no longer meet discontinuance criteria under the new criteria and were borderline candidates under the old criteria. 8 of the candidates had not fully met the old discontinuance criteria and do not meet the revised discontinuance criteria.

-- Number not included in FAA study and why - 22 locations are not included in the plan since they do not meet discontinuance criteria.

Senator Andrews: How often will FAA update the tower criteria economic data?

Response: The economic values used in FAA's tower criteria are published in FAA report number FAA-APO-81-3, "Economic Values for Evaluation of Federal Aviation Administration Investment and Regulatory Programs." These values are reviewed periodically and will be updated whenever changes in price and income levels indicate that a change is necessary. We anticipate this will be approximately every five years.

Senator Andrews: The GAO report identified a potential cost saving of $53 million over the period 1981-1995 through the closure of 66 towers. You show a potential cost saving of $128.4 million for 52 towers over the period 1984-1993. Can you reconcile these two factors?

Response: The difference between these two figures cannot be readily compared. The GAO used the old tower discontinuance criteria which used 1975 dollars. The FAA cost figures are given in 1983 dollars. Secondly, GAO figures represent the amount that the costs exceeds the benefit of keeping a tower open. Although the benefits of maintaining a tower are included in the criteria used by FAA to identify and validate towers for decommissioning, benefits were not included in the "annual cost reduction figures. Additionally, GAO applied discount factors to their estimates of annual costs of continued operation for each tower. If these same factors were applied to the figures estimated by the FAA, the cumulative annual savings through 1993 would be approximately $76 million.

Senator Andrews: A quick comparison of your ATCT closures (pages A-7, A-8, and A-9) and the GAO list shows that only 42 towers appear on both lists. In your report you state 46 towers appear on both lists. Can you reconcile the difference?

Response: The report should state 44 towers appear on both lists. The number 46 is a typographical error. The 2 difference (42 versus 44) are accounted for by the Valdez, Alaska ATCT which was decommissioned 1/21/83 and is included in the total of 52 control towers and the Brunswick, Georgia ATCT which is listed in the consolidation plan as St. Simons Island.

Senator Andrews: Of the 35 towers temporarily closed after the 1981 controllers' strike, how many meet the current discontinuance criteria and will any of these be reopened?

Response: As of October 31, 1983, 41 of the 80 control towers closed temporarily after the strike remain closed. Of the 41 towers still closed, 34 meet the discontinuance criteria and 7 meet retention criteria, and of these 7, 6 are scheduled for reopening and one is being reviewed in-depth since it is a borderline candidate. The 35 control towers referred to in the report include the 34 temporarily closed facilities meeting discontinuance criteria and the Owensboro, KY ATCT which is a discontinuance candidate for FY 1984 but is currently operating as a contract tower in the FAA's pilot program for contractual services as directed by Congress.

Of the 34 control towers still closed temporarily, 30 are identified for closure in FY 1984, 2 in FY 1985, and 2 in FY 1986. The FY 1984 candidates closed temporarily (30) will remain closed and the FY 1985/1986 candidates closed temporarily (4) are being reviewed. The 4 towers in FY 1985 and 1986 have been identified only as potential closure candidates and the status of each is being reevaluated before any decisions are made. Also one of these 4 towers has been selected to participate in the FAA's pilot contract tower program (Merced, CA).

QUESTIONS SUBMITTED BY SENATOR D'AMATO

Senator D'Amato: When will a decision be made regarding the location of an automated flight service station serving the Western N.Y/Western Pennsylvania area?

Response: The evaluation for the Western N.Y/Western Pennsylvania flight plan area is currently in process. We expect to make a decision as to the location for the area during the second quarter of FY-84.

Senator D'Amato: What criteria are being used to select sites for automated flight service stations? What will happen to the flight service stations in Elmira and Buffalo. Both now are designated as facilities to be consoliodated at some unknown future date? When will they receive some specific information?

Response: Building space for Automated Flight Service Stations (AFSS) is acquired by seeking maximum competition from communities. A Solicitation for Offers (SFO) containing FAA requirements is made available to all communities. The SFO package also contains award factors such as life-cycle cost, building factors, and other factors such as quality of the community. Communities decide for themselves whether to submit an offer for the particular flight plan area.

To ensure the integrity of the selection/evaluation process there are three separate levels of review. The Regional Office evaluates the offers received from interested communities in the flight plan area. The results of the regional evaluation are submitted to the Federal Aviation Administration (FAA) headquarters for review and approval by the Director, Acquisition and Materiel Service. Due to the sensitivity of these selections, the Administrator is the third and final level of review and approval. The selection is then coordinated with the Office of the Secretary prior to announcement and award.

Procedures from the Federal Procurement Regulations (FPR) are being followed in the site selection process so that the selected location represents the lowest life-cycle cost to the Goverment. In determining the life-cycle cost, all associated costs (lease cost, telecommunications cost, relocation cost, utility/service cost, etc.) are taken into account and calculated over a 20-year period which is projected as the minimum operational life expectancy of the AFSS. Also, this analysis considers both lease construction and Government construction in determining the option which is most cost effective in terms of overall costs.

This process ensures that all offers will receive fair and equal consideration.

Decisions as to consolidations of facilities (including those at Elmira and Buffalo) will be made following selection of new AFSS locations.

Senator D'Amato: Since the consolidation of 317 flight service stations into 61 automated stations is a major undertaking, will you explain what the FAA has done to ascertain whether this will indeed be a system which pilots will trust and accept?

Response: Most of the changes, excluding direct user access, that will take place in the Flight Service Station System as the FAA consolidates from 317 to 61 facilities will be transparent to the pilots. Services presently provided at FSS's to be consolidated will be provided from the new automated facilities. Radio coverage, weather observations and other services provided at the old FSS will be remoted to the new AFSS. Additionally, toll free access that is provided today will continue to be provided.

The advent of direct user access capabilities will present a significant change in the way the pilot will use the system. Recognizing this fact, the FAA has completed a number of laboratory simulation and field demonstration evaluations of direct user access systems. All of the evaluations concluded that carefully designed direct user access systems are a practical and effective alternative means for general aviation pilots to receive pre-flight briefings and file flight plans.

The evaluation reports conclude that: 1) the operating procedures for the direct access systems proposed for inclusion in the FSS Modernization Plan are simple enough for most pilots to master readily; 2) they frequently provide the pilot a more timely means for completing his/her preflight briefings, and 3) the public reaction to the proposed system has been highly favorable.

The most comprehensive assessment of user acceptance of these systems were demonstrations of Voice Response Systems (VRS) providing a number of pre-flight weather products in the Washington, D.C. and Columbus, Ohio areas. User surveys indicated that the service was suitable for widespread public use. The FAA believes that these tests strongly demonstrate that pilots will trust and accept the consolidated system.

Senator D'Amato: What has the FAA done since April 1983 to assure that the automation and consolidation is cost-effective?

Response: The Secretary will submit to Congress A Report on the Flight Service Station Program, which will conclude through a series of sensitivity analyses (considering the rate of growth in demand; staffing growth to meet increased demand for services; and the level of user acceptance of the automated system) that cost savings will result from implementation of the FSS consolidation/automation program.

Senator D'Amato: What are FAA's current plans regarding the third automated station which is to be in Western New England?

Response: The evaluation for the Western New England Flight Plan Area (FPA) is currently in process. Congressional interests will be advised when a decision to locate the automated flight service station in this FPA has been made.

Senator D'Amato: It is my understanding that the FAA is currently accepting bids on sites to serve the third service area of Western New England. Is this so? If yes, why was this automated station not included in the FAA's required report to Congress regarding facility consolidations?

Response: The Western New England flight plan area includes the northeastern part of New York, Vermont and the western half of New Hampshire. Although the selection process is underway, the building is not required until early fiscal year 1987. Consolidation of FSSs to support that facility will not occur until the out years and are not included in this report.

Questions Submitted by Senator Chiles

Senator Chiles: Many places in your report indicate uncertainties concerning positions being filled or encumbered. The opening of the new AFSS in St. Petersburg shows 39 positions affected. Are you proposing a new facility and planning to not staff it fully?

Response: The positions shown for the new AFSS in St. Petersburg are those that will be gained as a result of the consolidation of Melbourne and Orlando. The number shown does not include the 28 positions currently in the St. Petersburg FSS. The St. Petersburg AFSS will be fully staffed. The Vero Beach FSS will be consolidated into St. Petersburg after the period of time covered by this plan.

Senator Chiles: According to your report, 46 of the 52 discontinuance candidates were identified in the GAO report. GAO estimated, based on FAA criteria available at the time of the 1981 report, that closing these 46 towers would save $37 million between 1981 and 1995. Your calculations show that by closing 52 towers, the FAA could save $128 million by 1993. Is the additional $91.44 million savings a result solely of the new economic criteria? If not, please explain.

Response: The difference between these two figures cannot be readily compared. The GAO used the old tower discontinuance criteria which used 1975 dollars. The FAA cost figures are given in 1983 dollars. Secondly, GAO figures represent the amount that the costs exceeds the benefit of keeping a tower open. Although the benefits of maintaining a tower are included in the criteria used by FAA to identify and validate towers for decommissioning, benefits were not included in the annual cost reduction figures. Additionally, GAO applied discount factors to their estimates of annual costs of continued operation for each tower. If these same factors were applied to the figures estimated by the FAA, the cumulative annual savings through 1993 would be approximately $76 million.

QUESTIONS SUBMITTED BY SENATOR STENNIS

Senator Stennis: Mr. Chairman, we are holding this hearing today to discuss something which you and I have publicly agreed on as an item of major importance. That is our air transportation system.

When the Administrator of the Federal Aviation Administration, Mr. Lynn Helms, testified before this subcommittee in the Spring, I was happy to compliment him on the good job he has done, especially his handling of the air traffic controllers strike in August of 1981. Now I am glad to have this report and to know that the Federal Aviation Administration is moving toward shaping up our air transportation system and making it more effective and efficient. However, I do have some questions about the procedure that will be used to accomplish this goal.

In asking these questions, I will use as a reference, a Federal Aviation Administration facility in my State which has been mentioned in this report. The Greenville, Mississippi Airport has on its premises an airport traffic control tower, which the Federal Aviation Administration operated prior to the air traffic controllers strike in 1981. At that time, this tower along with many other towers around the nation, was closed temporarily. Now this report has come out which shows that the tower is scheduled for closing in 1986. Further, the report states that additional studies are ongoing to see if the tower should be reopened prior to 1986.

My first question is this, "Will the same criteria, the same measuring stick be used to determine if this tower should be reopened prior to 1986, or will the standards be different than those for other towers which are already open?

Response: The same tower establishment/discontinuance criteria are applied to all control towers. Control towers, both open and closed temporarily, have been identified as candidates or potential candidates for discontinuance. Control towers not meeting the discontinuance criteria and now closed temporarily have been scheduled for reopening.

Senator Stennis: There are several unique factors with the Greenville Airport that do not fit into the formula you have for determining the need for a tower, as I understand it. These factors are:

a) The Little Rock, Arkansas Air Force Base intends to use the airport to practice touch and go landings for the Department of Defense C-130 School if the tower is reopened.

b) Delta State University would use the tower to prepare students for management careers in air traffic control and aviation safety. Delta State is the only University in Mississippi that offers this type of aviation program and is one of only thirteen colleges in the United States accredited by the Federal Aviation Administration in Airway Science Management.

c) A company which specializes in refurbishing military aircraft is considering locating a facility at the Greenville Airport. This facility would require an air traffic control tower.

My second question is, "How, if at all, will these factors be included in the decision of reopening or leaving closed the Greenville Airport Traffic Control Tower?"

Response: These factors along with other site-specific data will be included in the in-depth staff study to be completed on the Greenville Control Tower. The site-specific analysis completed on each location identified as a potential candidate for discontinuance is an integral and important phase in the criteria.

Senator Stennis: I am confident that the closing of the tower at Greenville has reduced the traffic at that airport. Still, I understand that the cost benefit ratio is 1.04, which exceeds the criteria you have established. In your further review of this facility, will you take into account the reduction of traffic over the past two years caused by the absence of a tower?

Response: Yes, the traffic activity will be reviewed very carefully. The identification of potential tower discontinuance candidates was based on pre-strike activity figures since the controllers' strike did have an impact on traffic activity. Additionally, the terminal area traffic activity forecasts have been updated to include actual activities through FY 1982. Airports impacted by the strike received particular attention in this revision. Trends in aviation activity was examined and, with the assistance of the FAA regional offices, the forecasts were revised to discount any short-term discontinuities. These revised data were then used in the tower criteria analyses.

Senator Stennis: Finally, I would like to know when you expect this further review to be completed, and when this airport traffic control tower can be reopened?
Thank you.

Response: We expect to have our review completed by the end of the year. At that time, a decision will be made concerning the reopening of the Greenville Control Tower.

QUESTIONS SUBMITTED BY SENATOR HATFIELD

PENDLETON AIR TRAFFIC CONTROL TOWER

Senator Hatfield: What action is being taken to reopen the Pendleton Air Traffic Control Tower (ATCT) per the direction of the Senate Appropriations Committee Report in the Fiscal Year 1984 Transportation and Related Agencies Appropriations bill? When will this action be taken and why has it not occurred so far?

Response: Priority consideration was given to reopening the Pendleton Control Tower. An in-depth staff study and site-specific analysis were completed and a detailed benefit/cost analysis was performed. These revealed that the facility fully met the discontinuance criteria thus it was identified as a candidate for permanent closure.

At this time, a private contract employees' program has not been established. A pilot program for contractual services at 5 locations is in progress now to determine the feasibility, procedures, and cost effectiveness of such a program. Preliminary analyses indicate that a location must meet retention criteria to be considered as a candidate for such a national contract tower program if it is implemented. A study paper should be in coordination in the March/April 1984 time frame and a determination made by the end of FY 1984 concerning the establishment of and criteria for a national contract tower program.

Senate Hatfield: Are there other airports in the Northwest Mountain region or in the country which have worse cost-benefit ratios than Pendleton that currently have Air Traffic Control Towers operated by FAA or through contract with the FAA? What distinguishes Pendleton from Idaho Falls, Idaho; Owensboro, Kentucky; and, Merced, California; all of which have air traffic controls operated by FAA with cost-benefit ratios less than Pendleton, Oregon.

Response: Yes, there are other towers in the country but not in the Northwest Mountain region that have lower cost-benefit ratios than Pendleton, Oregon and they have been identified as candidates or potential candidates for discontinuance. There are also locations with higher cost-benefit ratios than Pendleton but still below criteria that have been identified as candidates or potential candidates for discontinuance.

Of the 3 control towers mentioned only Owensboro, KY has a cost-benefit ratio below Pendleton's. The cost-benefit ratios for those three towers and Pendleton are:

Pendleton, OR	.69
Idaho Falls, ID	1.06
Owensboro, KY	.61
Merced, CA	.87

Idaho Falls and Merced have been identified as potential candidates since they have not fully met the discontinuance criteria

but preliminary analyses indicate they will meet the criteria in the next year or two and each will be monitored closely and reviewed thoroughly before any final recommendation is made. Detailed studies and site-specific benefit/cost analyses have been completed on Owensboro and Pendleton which show that they meet discontinuance criteria.

Senator Hatfield: What factors were included in considering the closure of the ATCT at Pendleton? Were such factors as the number of pilot weather briefings, gallons of fuel consumed and the number of airline passengers considered? What weight was given to safety and divergent and, perhaps, conflicting use of runways?

Response: An important part of our criteria is the site-specific analysis which includes factors such as:

a. Assurance that factors unique to the location, such as weather and topography, are properly accounted for.

b. Potential use of the site to provide capacity and training relief for a hub airport.

c. Impact on adjacent facilities.

d. Operational factors which cannot otherwise be accounted for by the benefit-cost analysis.

e. The possibility of significant changes in traffic activity attributable to unique local conditions.

f. Military requirements.

These factors along with others are included in the in-depth staff studies which are prepared by the region that has operational jurisdiction over the facility identified since it is the most familiar with the site-specifics of each location. Additiona-ly, during this phase of the review, coordination is effected with the aviation community, local and state officials, members of Congress and other interested parties advising them of any proposed action and requesting their comments. Once this compilation of data and comments is completed, it is forwarded to the Washington Headquarters where it is revised in-depth and coordinated with all offices before a recommendation is submitted for approval.

Consistent with the FAA's mission, serious consideration is given to safety and service prior to any decision being made to discontinue or establish air traffic services at any airport.

The benefits referred to are primarily safety benefits. Tower safety benefits, from prevented collisions between aircraft and other prevented accidents, are reduced fatalities, injuries, and property losses. Safety benefits account for approximately 75 percent of the total tower benefits,

depending on the traffic mix at the particular airport. The remaining tower benefits, from reduced flying time, are saved operating expenses and passengers' time. All benefits are derived from reported and forecast activity for each user group.

Discontinuance criteria also require a qualitative site-specific analysis which may address additional safety issues not included in the benefit-cost assessment.

CLOSURE OF FLIGHT SERVICE STATIONS

Senator Hatfield: The FAA is proposing to close Flight Service Stations in Baker, North Bend, Redmond, the Dalles and Portland. When will those closures occur? Has any consideration been given to retaining a flight service station in eastern Oregon?

Response: The six existing FSSs can only be identified as candidates for the two consolidations planned in fiscal year (FY) 1986 since the site of the AFSS has not been identified. Once the site has been selected (by the end of FY-1984) and the two planned consolidations have been identified, the remaining locations will be scheduled for consolidation in specific outyears. All existing FSSs in Oregon will be consolidated into the new facility by the end of FY-1990.

In the process of developing the 61 AFSS configuration, we considered a variety of alternatives including both larger and smaller numbers of AFSSs. In the end, it was determined that the aviation community in Oregon, for example, would be adequately served by a single AFSS without any derogation of safety or reduction in the quality of service.

Senator Hatfield: It is my impression that the FAA intends that the Automated Flight Service Station will provide service to the entire State of Oregon. Is that a correct assumption? When does the FAA expect the AFSS to be operational? Will the Flight Service Stations be kept open until the AFSS automated machines are tested and proven?

Response: Yes, the AFSS will serve all pilots in Oregon. The FAA plans to take occupancy of the new facility in late FY-1985 and it will become operational by January 1986. It may be necessary to consolidate two FSSs in FY-1986 depending on the site of the AFSS. Any additional consolidation would be predicated on verification of the quality of service. All FSS consolidations in Oregon should be completed by FY-1988.

Senator Hatfield: How will weather observations and pilot briefings be provided to persons seeking this information? How often will weather observations be taken? Will this service be provided on a 24 hour basis? Where will weather observations be taken in the State of Oregon? Who will provide these weather observations? How

will pilot briefings be provided? What understanding will these individuals or computers have of unique geography or weather conditions at the various airports? How will this training be provided? Will the personnel at existing FSS be utilitized to provide information on flight plans and weather briefings?

Response: There will not be any derogation of safety or service. Weather observations will be continued at the FSS locations which currently provide this service, i.e., Baker FSS, North Bend FSS, Redmond FSS, The Dalles FSS, and Portland FSS.

The number of observations provided at each location will be equivalent to the current level of service. The observations will be provided initially through contract observers who must meet the same standards applied to FAA personnel today. Subsequently, the observations may be provided by automated means, depending on the requirements of the location in question.

Preflight planning services, including pilot briefings, will be provided to the entire state on a basis equivalent to that currently available. Briefing assistance to pilots in flight will be continued through the existing, or an enhanced, air-ground communication system.

The standards used to certify FSS specialists providing these services from the AFSS will be equivalent to those used today. This will include both initial and proficiency training as well as written and oral examinations. This certification will address general as well as unique terrain features and weather phenomena in addition to the airways system and airport configurations.

The two prototype automated weather observation systems being tested at 14 diverse geographical locations will be subjected to similar rigorous standards and safety standards before a production contract is awarded and the equipment becomes operational.

All specialists at existing FSSs will be given the opportunity to relocate to the new facility at an equal or higher career level.

Senator Hatfield: In what quantifiable way will safety be enhanced through the establishment of automated Flight Service Stations?

Response: Today's system is essentially a manually operated, labor intensive network of 317 facilities using antiquated equipment. The work force of some 4500 specialists is poorly distributed due to present restrictions on closures and part timing. This improper distribution of personnel means that requests for service at busy facilities are not satisfied in a timely manner, yet specialists at lower activity facilities remain unproductive due to a lack of demand. The number of services per specialist per year in today's system ranges from 1,400 to 27,000. The average productivity per specialist per year is about 14,000 services. The consequence of this dilema is that flights may be delayed, pilots may depart and attempt to get preflight information while enroute, and in some cases pilots may attempt flight without adequate information.

Full implementation of the FSS Modernization Program will enhance safety through the availability of more timely and accurate data. The system is designed to satisfy the forecast activity of the 1990's at a significantly reduced cost per service. The average specialist productivity figures are expected to increase to more than 25,000 services per year.

Personnel and services will be centralized into 61 FSSs that are equipped with solid-state technology. This will include computerized information retrieval, and air-ground/telephone communications switching systems. Pilots and specialists will have direct access to weather and aeronautical information and will be able to file flight plans directly into the FSS computer.

Weather and flight movement data will be more readily accessible because of the increased transmission speeds and the automation of routine data processing tasks.

Eugene General Aviation District Office

Senator Hatfield: Please provide for the Committee figures for workload functions, general and air carrier operations, pilots and aircraft for each airport in the Eugene GADO area.

Response: The Eugene Office has no primary air carrier responsibility or associated staffing. Our data shows general aviaton work functions consisting of 6.7 percent of the regional workload in the operations specialty and 5.9 percent in the airworthiness specialty. The Census of U.S. Civil Aircraft dated 1982 indicates there are 2,423 aircraft registered in the Eugene General Aviation District Office (GADO) area. Our source of information for pilot population shows approximately 4,160 pilots within the Eugene GADO area. We do not have data tabulated by each airport, and we do not believe it is necessarily appropriate. For example, a pilot's activity may be associated with several or many airports, office districts, or even states.

Senator Hatfield: Do the figures you have provided above include services (such as air checks, pilot certifications, mechanic cerifications, surveillance of pilot schools, etc.), that are provided to persons or companies outside the Eugene GADO area by that office? Do you have any way of quantifying the numbers of services provided to persons or companies outside the Eugene GADO service area that use the Eugene office?

Response: The Eugene GADO does not and should not provide services such as airmen certification tests, pilot or mechanic certifications, etc., outside of its geographic area of responsibility. Due to the nature of aviation activity, however, operators for which the Eugene GADO has responsibility naturally have activity outside of the Eugene office district boundary. For this activity the figures shown in the previous question do include all air checks, pilot certifications, mechanic certifications, or other FAA responsibilities in accordance with the geographic concept under which all FAA Flight Standards offices operate. We have been advised by the Manager of the Eugene GADO that we have no information available to quantify the number of services provided by

that office to persons outside the Eugene GADO area such as transient pilots or pilots registered elsewhere, that choose to use the services of the Eugene office.

Senator Hatfield: What will the effect be of these actions on the personnel located in the Eugene GADO?

Response: The effect of the Flight Standards realignment on personnel presently assigned to the Eugene GADO will generally be a relocation of those personnel within the State of Oregon. Currently a manager, three technical, and one clerical personnel will be considered within the overall staffing of the expanded Portland Office. Based on inspector preference, qualifications, management review, and FAA personnel policies, two inspectors within the overall Portland staff will then be assigned to a new field office at Medford. Those assigned to Medford could thus be inspectors from either the present Eugene or Portland offices. All Eugene technical personnel will be offered comparable positions to those now held. Except for the two inspectors relocating to Medford, all others will continue to be assigned or be relocated to Portland. We will offer clerical personnel, division-wide, the opportunity to move to vacant clerical positions within Flight Standards. Should the employee not desire to accept such a position, we will attempt to place that person in one of our other FAA divisions, or in another Federal agency if at all possible.

Should personnel from Eugene desire to move to a Flight Standards position outside of Oregon and we find that such a request can be accommodated, we plan to fill resulting vacant Oregon positions from elsewhere in the division or with qualified inspectors from other sources to ensure that a full technical staff is maintained.

It is important to note that in previous readjustments within FAA it has been our experience that we are able to accommodate realignments such as the one being proposed in Oregon with assurance of meaningful and comparable jobs for FAA personnel, retention of pay, and, in some cases, opportunity for advancement to the advantage of the employees most directly affected while ensuring fulfillment of FAA responsibilities.

Senator Hatfield: What are the present travel costs for operations and airworthiness inspectors in both Portland and Eugene? What will be the travel costs under the FAA's proposal to consolidate in Portland and create a new office in Medford? How much time is spent in travel by airworthiness and operations inspectors at the present time? How much time will be spent in travel under FAA's proposal?

Response: The travel costs for operations and airworthiness inspectors in the Portland Office are $21,100 annually with 14 travelers. Eugene as a separate facility expended $9,600. The travel costs for a Portland FSDO with a Medford Field Office are estimated to be $38,500 with 17 travelers. Currently, the travel

time for the Portland Office Operations Inspectors is approximately 1,600 hours and Airworthiness Inspectors 1,200 hours. During the same period the Eugene Office Operations Inspectors travel was approximately 400 hours and Airworthiness 600 hours. It is estimated that under the realignment plan travel time will increase by less than 2 percent.

Senator Hatfield: Will this consolidation result in cost savings to the FAA? If so, please provide a precise breakdown of what the costs will be and where the savings will occur. If not, please indicate where the increased costs will occur.

Response: The proposed realignment will result in an estimated annual savings of $140,600. Details follow:

PORTLAND/EUGENE/MEDFORD SUMMARY

ANNUAL COSTS	CURRENT	PROPOSED
Salaries	813,000	696,200
Personnel Benefits	92,000	83,600
Travel	30,700	38,500
Aircraft Rental	35,800	31,600
Training	19,800	17,700
Rent/Utilities	62,500	48,700
Communications/Telecommunications	9,400	8,800
Maintenance	400	500
Printing/Reproduction	200	30
Supplies/Material	10,000	7,900
	1,074,400	933,800

	CURRENT ALIGNMENT	PROPOSED ALIGNMENT	ANNUAL SAVINGS
AUTHORIZED POSITIONS	19	19	0
ANNUAL COSTS	$1,074,100	$933,800	$140,600
ONE-TIME COSTS		$ 79,100	

QUESTIONS SUBMITTED BY SENATOR RANDOLPH

Senator Randolph: In its report to the Congress, the FAA indicates that a new criteria for air traffic control services was published in August. Are the proposed closings based on the new criteria or the old criteria? If based on the new criteria, how many towers would have been closed under the old standards and where would they be located?

Response: The proposed closings are based on the new discontinuance criteria, documented in FAA report number FAA-APO-83-2, "Establishment and Discontinuance Criteria for Airport Traffic Control Towers." This report includes a detailed comparison of the old and new criteria. Preliminary screening, using benefit-cost ratios derived from site-specific activity and forecasts and national average costs and economic values, showed that there were 55 discontinuance candidates under the new criteria compared with 42 candidates under the old criteria. The table on pages 43 and 44 of the criteria report lists these sites with both the old and new benefit/cost ratios. It is not possible to determine how many of these locations would have become discontinuance candidates under the old criteria without applying the old criteria using site-specific cost data and performing the qualitative site-specific analysis required by both the old and new criteria.

Senator Randolph: The FAA report to the Congress, "Planned Office and Facility Consolidations," the second paragraph, on page 15 describes the benefits and costs of operating towers. It also says that other factors are taken into consideration. Safety is not mentioned. Why should this be?

Response: The benefits referred to are primarily safety benefits. Tower safety benefits, from prevented collisions between aircraft and other prevented accidents, are reduced fatalities, injuries, and property losses. Safety benefits account for approximately 75 percent of the total tower benefits, depending on the traffic mix at the particular airport. The remaining tower benefits, from reduced flying time, are saved operating expenses and passengers' time. All benefits are derived from reported and forecast activity for each user group.

Discontinuance criteria also require a qualitative site-specific analysis which may address additional safety issues not included in the benefit-cost assessment.

Senator Randolph: The services being provided by air traffic control towers will be removed when a tower is closed. What or who will replace these services? Putting aside rhetoric about efficiency and economy, does this not cause a lessening of air safety?

Response: If a control tower is closed, services such as weather observations and NAVAID monitoring will be continued. Approach/departure control services for the airport will continue to be provided as they are now. Every effort will be made to ensure that services and components essential for continued airport operations and to the National Airspace System are maintained.

Tower closures do have a varied effect on air carrier and general aviation operations. However, general aviation pilots, for the most part, routinely operate in and out of airports without towers. There are over 12,000 airports in the system which do not have control towers. Operating procedures at airports without a tower are published in Federal Aviation Regulations and in Advisory Circulars 90-66 and 90-42C. Air carriers, while not routinely operating at airports without a tower, are authorized to do do with some provisos, and follow the same recommended procedures. The tower closures will have a minimal impact on the users and will not adversely affect the safety of the air traffic control system.

Senator Randolph: In the formula used by the FAA to determine whether a tower has a 1.0 rating, air carrier operations carry a greater weight than air taxi operations. Yet, some airlines, such as Wright Airlines which serves West Virginia, is counted as an air taxi only because it operates under a "three letter designator" as opposed to a "two letter designator." Is it not conceivable that an air taxi could be carrying more passengers with more flights in and out of an airport than an air carrier serving a comperable airport, but the airport reaching 1.0 is the one with air carrier operations.

Response: The term 'air carrier' as applied to establishment criteria refers to aircraft with 60 or more seats, 'air taxi' means aircraft with less than 60 seats. In the past, aircraft with "three letter designators" have been counted as air taxis. However, the FAA is instructing its field personnel to count an aircraft with fewer than 60 seats as an 'air taxi,' and any aircraft with 60 or more seats as an 'air carrier.' By adherence to these definitions, it is unlikely that, on average, an 'air taxi' flight will be carrying more passengers than an 'air carrier' flight.

Senator Randolph: I am concerned and perplexed that the four West Virginia towers are the only facilities in the Eastern Region marked for closure, particularly since it has been brought to my attention that there may be as many as seven other ATCT's in this Region with less air traffic than the targeted West Virginia towers. On October 20, I sent to Administrator Helms a list of the traffic activities at these seven towers. Have you reviewed this data and determined its accuracy? If these figures, are correct, can you give further clarification of the criteria for the scheduled tower closings?

Response: The FAA has received the data and is currently reviewing the figures and verifying the accuracy and computations. The findings and a clarification of the criteria for the towers listed will be forwarded directly to you within the next 45 days.

Questions Submitted by Senator Bentsen

Senator Bentsen: The FAA's Planned Office and Facility Consolidation Report has a noted scarcity of information on the effects on safety of the planned closures of Air Traffic Control Towers (ATCTs). What studies have been conducted by the FAA to account for the effects on safety of approach, landing and take-off by aircraft at airports without ATCT facilities?

Response: The discontinuance criteria itself takes into consideration the safety factor. The benefits referred to are primarily safety. Safety benefits account for approximately 75 percent of the total tower benefits, depending on the traffic mix at the particular airport. All benefits are derived from reported and forecasted activity for each user group. Discontinuance criteria also require a qualitative site-specific analysis which may address additional safety issues not included in the benefit-cost assessment. Revised criteria for discontinuance of control towers are based upon a detailed benefit-cost analysis documented in FAA report number FAA-APO-83-2, "Establishment and Discontinuance Criteria for Airport Traffic Control Towers".

Additionally, in-depth staff studies are completed on each tower identified as a candidate for discontinuance and these take into consideration such things as operational requirements, factors unique to the airport and its surrounding area, alternate air traffic services, impact on the community and users, and other pertinent data.

Senator Bentsen: For a significant period of time prior to the August 1981 PATCO strike, aircraft owners and pilots were seriously concerned about the safety of air travel due to the heated discussions between the air traffic controllers and FAA. As a result of this concern there was a sharp decline in the volumne of air traffic before the actual date of the PATCO strike. Did FAA take into account the atmosphere generated by the "threat" of a PATCO strike in compiling the empirical data used to support the cost effectiveness studies of ATCTs that are to be closed? Additionally, were any post-strike studies conducted of possible present or future increases in air traffic volume at the airports that are subject to ATCT closure.

Response: Yes, the FAA did take into account the impact of the controllers' strike on traffic activity. Data used to identify control towers as candidates or potential candidates for discontinuance were based on pre-strike traffic activity figures for at least three years. Additionally, the terminal area traffic activity forecasts used in calculations and future growth trends have been updated. Airports impacted by the air traffic controllers' strike received particular attention in this revision. Trends in aviation activity were examined and, with the assistance of FAA regional offices who have particular jurisdiction over an affected facility, forecasts were revised to discount any short-term discontinuities. These revised data were then used in the tower criteria analyses.

Senator Bentsen: With regard to the consolidation plans of Flight Service Stations. What studies has FAA conducted in relation to air traffic safety before and after the institution of the AFSS plan and, concurrently, what contingency plans have been developed in the event of breakdown of the automated FSS system?

Response: Safety was a primary consideration in the development of the FSS Modernization Plan. Safety is an integral factor in the size of the 61 flight plan areas, the ability of specialists to assimilate information regarding terrain and weather phenomena, the geographical distribution of facilities as well as the equitable distribution of workload. Safety is also reflected in FAA's commitment to maintain an equivalent level of services for weather observations, preflight and postflight telephone accessability and continuance of the current air/ground communications system.

One of the primary objectives of the prototype facility at Leesburg, VA, was to assure FAA as well as the aviation community that a single FSS, adequately staffed and equipped, could provide an acceptable level of service. The Leesburg FSS was commissioned in 1976 using the combined staff and services from the Washington National, and the Richmond and Charlottesville, VA, FSSs. Since that time the consolidated facility has provided more services than that recorded by each individual facility prior to the consolidation.

In the technical area redundancy is a key word. The Flight Service Automation System (FSAS) is extremely fault tolerant in that is provides for automatic fault detection, isolation and reconfiguration. Any single failure within the computer system will be transparent to the FSS specialist. Multiple failures of like components were also considered wherein the system automatically reverts to a predetermined set of functional priorities.

In the unlikely event that a single computer system experienced total failure, the associated AFSSs can be connected to alternate computers via dial-up telephone lines. The failure of a single computer system will not have an adverse effect on the remaining systems. Also, AFSSs will be equipped with both commercial and independent electrical power systems, and therefore, will essentially, be immune to loss of electrical power.

Senator Bentsen: The FAA Consolidation Plan states that the FSS modernization program is on the "threshold of implementation", with the Model 1 shipments scheduled for delivery in July, 1984. I note that in November, 1982 the FAA stated that there would be a 14-month extension of the planned December, 1982 delivery of automated equipment. What guarantees are there that the Model 1 shipments will be delivered in July, 1984 and, additionally, that there will not be delays in the construction of AFSS facilities that could undermine air traffic safety and efficiency?

Response: There are no absolute guarantees that the Flight Service Automation Systems (FSAS) or the AFSSs will be delivered in accordance with the current schedule. Based on our most recent assessment, however, the contractor for FSAS had development of Model 1 well in hand. The hardware design has been completed and the first three systems have been configured at the factory. Software

design is completed and coding has begun. Model 2 design is underway. Our building acquisition program is progressing satisfactorily. Two of the new buildings are operational. We have taken occupancy of a third, and anticipate similar action on at least 15 additional buildings in FY-1984.

More important, however, our planning will accommodate variances in delivery of either buildings or equipment to the extent that safety will not be impaired. In the event that the AFSS space is not available we will continue to operate existing FSS. We pay close attention to the preparation of these facilities to assure that FSS personnel are not relocated until we are assured of the availability of the AFSS.

In those cases where the AFSS is ready but automation equipment is not, we will transition to the new quarters using existing equipment. We can maintain the current level of service during that interim until FSAS becomes available, and at the same time improve the productivity of our limited work force. Again, we will not permit any derogation of safety and will continue the present level of service.

SUBCOMMITTEE RECESS

Senator ANDREWS. As I said, the subcommittee will stand in recess, subject to the call of the Chair.

[Whereupon, at 11:45 a.m. Tuesday, November 1, the subcommittee was recessed to reconvene at the call of the Chair.]

MATERIAL SUBMITTED SUBSEQUENT TO HEARING

[The following materials were submitted as hearing documents:]

(83)

LETTER FROM PAUL E. STEWART, BENEDUM AIRPORT AUTHORITY

October 7, 1983

Senator Robert Byrd
133 Russell Senate Office Building
Washington, DC 20510

Dear Senator Byrd:

The Benedum Airport Authority wishes to go on record objecting to the proposed closing of the air traffic control tower at Benedum Airport, Bridgeport, WV.

It is my understanding that the formula used by the FAA must show a 1.0 to qualify for a tower. Benedum Airport, under the present system, equates to .73. However, the FAA does not allow counting the Wright Airlines operations because they operate under a "three (3) letter designator" which is considered air taxi. If Wright Airlines operations were counted, our count would be 1.18, well within the formula.

As the airport operator, safety is the number one priority. In the absence of the air traffic control tower, a high level of safety will most certainly be difficult at least if not impossible to maintain.

I would estimate that without an air traffic control tower facility, scheduled services by Wright Airlines will drop immeasurably if not entirely.

Further, it seems inconsistent that all air traffic control towers designated for closing are in West Virginia. According to computation of traffic counts for other states in the Eastern Region, they do not meet the criteria but no mention of a closing.

The Benedum Airport Authority seeks your help in this matter and would appreciate a response at your earliest convenience.

Very truly yours,

Paul E. Stewart

Paul E. Stewart
Airport Manager

LETTER FROM JOHN I. TOMINACK, OHIO COUNTY (W. VA.) COMMISSION

October 28, 1983

The Honorable Robert C. Byrd
United States Senate
Washington, D. C. 20510

Dear Senator Byrd,

I want to thank you for your efforts to keep the Wheeling-Ohio County Airport tower open by conducting a public hearing on November 1, 1983. As you have stated, the major concern is that of safetv. We share this concern with you.

To assist you in your efforts, I would like to supply you with this information regarding our airport. Corporate, government, military and private aircraft use the airport and during the past year, there have been 71,000 landings at the airport. The United States military utilizes our airport heavily with the Air National Guard using it daily for exercises and also the National Guard Helicopter unit from Washington, Pennsylvania practices there daily. With this heavy use by the military, there is an important safety factor not only for these aircraft but other public and private aircraft which utilize the airport and airways at the same time. There must be a continuation of the organized and professional control to avoid serious accidents.

In addition to the heavy military use, the airport with its FAA operated control tower serves the business sector for not only Wheeling, but the entire Upper Ohio Valley. By having the FAA continue to operate the control tower, it will insure the safety of the numerous executives and corporate aircraft which utilize the airport as an efficient means of transportation.

I cannot stress enough to you the importance which we, The Ohio County Commission, feel the FAA control tower at the Wheeling-Ohio County Airport provides for the continued SAFE operation of the airport, not only to those who utilize it directly but to the citizens who reside near there.

If we may be of any assistance to you, please do not hesitate to contact us.

Sincerely,

John Tominack

John I. Tominack
President

LETTERS FROM ROBERT A. MILLER, PROFESSIONAL AIR TRAFFIC CONTROLLER

October 8, 1983

The Honorable Robert C. Byrd
United States Senate
Washington, DC 20510

Dear Senator Byrd:

On October 5th I was informed that based on the new criteria, the FAA in fact intends to close Morgantown Tower in fiscal year 1985. I was told that only four towers in the FAA's Eastern Region have been picked for closing through fiscal year 1986 and all four are in West Virginia. My facility manager advised me that using fiscal year 1982's airport activity figures and the new criteria, all four towers meet the FAA's standards for closure.

I have found that when the new criteria is applied to the 1982 figures, seven other towers in the Eastern Region also meet the closure standards and all of these towers worked less total operations than Morgantown Tower! I have enclosed this information on a separate paper. The number I have called "closure index" is what the FAA uses to determine if a tower should be a candidate for closure. The closer the number is to 1.0, the closer the tower is to meeting the FAA's requirements to remain open. Based on this information, why is it that only four West Virginia towers have been selected to close in the next three years? Not only does this appear to be grossly unfair to the residents of West Virginia, but I feel unfair to the controllers who will have to try and sell their homes and move their families during this severe economic period.

As you know, accessible airports are necessary for a healthy business climate and closing over half of the West Virginia air traffic control towers will not help our suffering economy. Your help in this matter is appreciated.

Respectfully,

Robt A Miller

ROBERT A. MILLER
Professional Air Traffic Controller

FACILITY	TOTAL OPERATIONS FY1982	CLOSURE INDEX
Morgantown, WV	57345	.85
Hagerstown, Md	37198	.66
Lynchburg, Va	53336	.91
Ithaca, N.Y.	54975	.86
Elmira, N.Y.	56231	.88
Utica, N.Y.	44182	.80
Wilkes Barre, PA	54402	.80
Erie, PA	49526	.88

NOTE: The facility Manager of Morgantown Tower advised me that FY 82 figures had to be used to determine whether or not to close Morgantown Tower as FY 83 figures were not available at the time the decision was made.

October 30, 1983

The Honorable Robert C. Byrd
United States Senate
Washington, DC 20510

RE: PROPOSED CLOSURE OF MORGANTOWN TOWER

Dear Senator Byrd:

As per your office's request by phone on October 19, 1983, I am sending you this letter explaining, as best I can, what the Morgantown Control Tower does.

Generally speaking, control towers have been established to provide for a safe, orderly, and expeditious flow of traffic on and in the vicinity of an airport. At Morgantown we are responsible for the aircraft on the airport and any aircraft within a five mile radius of the airport up to an altitude of 4200 feet (MSL). We are instructed by FAA Handbook 7110.65 to give first priority to separating aircraft and issuing safety advisories. Local Control is concerned mainly with VFR traffic in and around the traffic pattern and with ground traffic. The local controller works with the IFR controllers at Clarksburg Approach Control to integrate VFR and IFR flights into a smooth, safe traffic flow in and out of the airport. Ground Control directs the movement of aircraft on the airport surface, working closely with Local Control. The controller relays clearances from Clarksburg Approach Control to departing IFR flights. Federal Air Regulations require all aircraft entering our airspace (Airport Traffic Area) to contact the tower by radio for landing instructions. If not landing, they must contact us for Air Traffic Control (ATC) authorization to operate in the Airport Traffic Area.

West Virginia University Medical Center is located about two miles northwest of the airport. This facility is the only designated trauma center for Northern West Virginia. It is also the only intensive care neonatal unit for the same area. As time is critical for patients needing the use of this facility, many are flown to the airport or flown directly to the hospital helipad. Earlier this year, during the evening when our tower is normally closed, and Morgantown Flight Service Station was closed due to a manning shortage, several lifeguard flights were denied ATC clearance to Morgantown due to a lack of an altimeter setting which would normally be provided by either the tower or Flight Service Station. If our tower is closed and later the Flight Service Station (as the FAA proposes), the accessibility of this facility by air could be critically curtailed.

West Virginia University Mountaineer Stadium is located adjacent to the Medical Center. During home football games numerous aircraft fly over the stadium pulling banners and helicopters shuttle people from the airport to the stadium. These operations could endanger the thousands of West Virginia University fans at the stadium if the tower was not operating. This year we handled 136 operations in one hour, generated by the crowds of West Virginia University fans supporting the Mountaineers. The fans would be both inconvenienced and endangered if a tower was not operating during home football games.

The Sheraton Lakeview Resort and Conference Center (now in a multi-million dollar development to become one of the largest time-share resorts in the country) is located three miles northeast of the airport on Cheat Lake. Helicopters regularly operate in and out of the helipad at the resort which is on about a three mile final for Runway 23.

The Ramada Inn, a four mile final for Runway 5 and a common reporting point for VFR aircraft also regularly accommodates helicopter operations. All of these helicopter operations if unreported can conflict with operations at the airport. During the summer months amphibian aircraft operate from Cheat Lake under the final approach course for Runway 23. They too can conflict with safe operations at the airport.

Morgantown Airport is the designated recovery airport for three army fields in the event of hurricane evacuation. The combined number of aircraft which would proceed to Morgantown in the event of evacuation of Weide Army Air Field, Davison Army Air Field, and Fort George Meade is 129. Closing the tower would perhaps make the airport unacceptable for this mission due to the inability to safely handle an influx of traffic of this magnitude in the event of an evacuation.

The Morgantown Airport is located in a somewhat mountainous area which is only remotely settled (as is all of West Virginia). It is not uncommon for the inexperienced pilots flying in the area to become disoriented and need assistance. Quite often we are contacted by just such a pilot and with the help of Clarksburg Approach Control and Morgantown Flight Service Station we are successful in guiding the aircraft to a safe landing. Closing the tower is closing one more avenue a pilot in distress would have to use to make a safe landing in an area typically rough in terrain.

The major inpact of closing the tower will be the lowering of the margin of safety now provided by our controllers. The airport will not be as safe, and those West Virginians who use the airport will be subjected to added dangers of flying into/from an uncontrolled

airport. First, no other facility can provide the separation and sequencing of aircraft as is now provided by Morgantown Tower. If an airport does not have a control tower, there is no ATC facility ensuring the safe and orderly flow of VFR and IFR aircraft to and from the airport. Second, Federal Air Regulations do not require aircraft operating in the vicinity of an uncontrolled field to make any radio transmissions. In fact, they need not have a radio! Third, only Airport Advisory Service would be available (if Morgantown Flight Service Station remains open). The Flight Service Station provides weather, known traffic, et cetera to the pilots who request it. No pilot is required to use the service, thus if a pilot elects not to call the Flight Service Station, all of the other planes in contact with Flight Service Station never know of the other aicraft's position until it is observed and then they can only anticipate the pilot's intentions! Fourth, if Flight Service Station closes, a UNICOM or CTAF (Common Traffic Advisory Frequency) would be available for the pilots use. A pilot can choose to announce his position and intentions on this frequency and listen for other pilot reports but as in Airport Advisory Service above, participation is strictly voluntary.

The air traffic environment--controlled airport versus uncontrolled airport--are as different as day and night. Presently Morgantown is controlled and all aircraft must contact the tower, must follow instructions and must follow a safe and orderly flight path to and from the airport under the direct supervision of a qualified Air Traffic Controller. If the tower is closed, it becomes "every man for himself," "first come, first on the ground," and "let's hope everyone sees his traffic before it is too late." The latter may be acceptable at an airport which caters only to general aviation aircraft (I would not want to make that decision), but is it fair to subject passengers of Wright Airlines to this uncertainty? (I certainly would not want to make that determination either.) I know that in the past five years at Morgantown, I have personally sent several aircraft around because they forgot to put down their landing gear, including one aircraft this year who was actually so low his propeller hit the ground. I have sent aircraft around who were too close to other traffic. I have sent aircraft back to the ramp because baggage doors were not closed. I have directed pilots to the field who were miles off course and then talked them into waiting until daylight to depart instead of chancing flying into a hillside. These lives saved were all general aviation pilots not professionals. The FAA's own statistics show that private flying is more dangerous than driving yet flying on an air carrier is much safer! How then does it make sense to develop a criteria for continuing the operation of a control tower which dictates that if 15,000 aircraft piloted by professionals use the airport, we keep the tower open; but if 74,999 aircraft piloted by amateurs (general aviation pilots) use the airport, we close the tower?

Respectfully,

ROBERT A. MILLER
Professional Air Traffic Controller

LETTER FROM JOHN W. BOWERS, CLARKSBURG, W. VA., TOWER

October 14, 1983

Honorable Robert C. Byrd
Senate Office Building
Washington, D.C. 20510

Dear Senator Byrd:

Per your request, I would like to express some comments in reference to the announcement that the FAA plans to close Clarksburg Tower.

If the TRACON remains open the cost reduction would not amount to a large amount. We would most likely lose four or five people.

There is a great need to reavaluate the way we count traffic. With the airline deregulations, air carriers have ceased to serve many locations, including Clarksburg. Only two airports in West Virginia are served by any air carrier and that service is declining.

Supplemental air carriers, such as Aeromech Airlines have taken over for the air carriers. They provide better service and under the same basic rules as air carriers. They do use a three letter designator which means we must count them as air taxi. Aeromech, as of October 1, 1983, merged with Wright Airlines, which makes them the eighth largest such carrier in the United States. I have learned they plan to fly under FAR121, but will continue to use a three letter designator, because they are not an international carrier. However, there are carriers with two letter designators that are not international. Two letter designators are assigned by ICAO, three letter designators by the FAA. I feel very strongly, we should be allowed to count these aircraft as air carrier, which they are, and that FAA order 7210.3F, which states in paragraph 1421 (2) NOTE: "Civil aircraft operators using three letter designators are to be counted as air taxi operations," be changed. Traffic criteria has always been heavily weighted in favor of air carriers. The method to determine the ratio factor for retention of towers is:

$$\frac{\text{Air Carrier}}{15000} + \frac{\text{Air Taxi}}{40000} + \frac{\text{General Aviation}}{75000} + \frac{\text{General Aviation Local}}{125000} + \frac{\text{Military}}{20000} + \frac{\text{Military Local}}{35000}$$

The figure arrived at from this computation must equal 1.0 or more.

These supplemental air carriers pay fees and taxes like regular air carriers and should be recognized as such. It is discriminating to not afford supplemental air carriers the same rights and privileges as regular air carriers. If I were counting Wright/Aeromech flights as air carrier, the facility would show a ratio factor of more than 1.0. As an example, I ran a computation for FY83 using the standard method and came up with .73. By changing the air taxi count of 9,731 to air carrier, the ratio factor is 1.18.

I believe safety factors at Benedum Airport are such that removal of the tower could result in a major problem. An incident which occured prior to the tower installation demonstrates what can happen. The departure ends of Runway 13 and Runway 3 are not visible to each other due to buildings. A single engine aircraft taxiied from a Tee hangar to Runway 13 and proceeded to depart that runway. At the same time, a Kingair departed Runway 3, after announcing his intentions on Unicom. The aircraft met at the intersection and only quick action of the Kingair pilot averted a midair collision.

It is true the single engine pilot would have been at fault, but how long could you operate the tower for the cost of such a crash not including the loss of life?

Wright Airlines (Aeromech) are operating Embraer, Beech-99 carrying up to 17 passengers and Convair 600 carrying up to 44 passengers aircraft in and out of Clarksburg Airport, any deviation from safety could cause a far greater catastrophe than the incident noted above.

In addition, a new air taxi is operating service out of Clarksburg, Mountain Air Cargo flying BE-18 type aircraft.

One thing that has created our traffic reduction is a 5 cent per gallon fuel tax. This is to be reconsidered during the upcoming State Legislature to take the tax off of aviation fuel. In addition, flight restrictions placed on aircraft by the Patco strike have held down operations.

As a check I ran two other towers thru the computation and found they were the same ratio area as we are. I believe there are others in the same category.

I have also run our instruments operations, not including overflights thru the computations and found a ratio factor of .98. By counting Wright flights as air carrier, this jumps to a 4.68 ratio factor. The numerical factor to discontinue radar is .35.

In addition, no other radar can cover this area at the altitude we can, and in this type terrain, that type coverage is a high safety point.

It is difficult to estimate how many new aircraft wreckage sites are not in the mountainous terrain that makes up most of West Virginia, because of the radar at Clarksburg.

We feel the FAA made a serious error by suggesting a tower handling almost 10,000 annual air carrier operations be closed, just considering the safety factor alone.

In addition, Clarksburg Tower is a LAWRS station and is the only source of weather at the airport. Without weather reporting, IFR operations are severely hampered. Without temperature and dew point, terminal forcasts will not be made. Lest we forget the flack we took on that item about a month ago.

John W. Bowers
Manager, Clarksburg Tower

LETTER FROM HON. DENNIS DECONCINI, U.S. SENATOR FROM ARIZONA

November 18, 1983

The Honorable Mark Andrews
Chairman
Appropriations Subcommittee on
Transportation and Related Agencies
United States Senate
Washington, D.C. 20510

Dear Mark:

I noted with interest the hearing held before your Subcommittee November 1, on the Federal Aviation Administration's final cost-benefit ratio criteria for FAA operated air traffic control towers. Although I was unable to testify at the hearing, like you and other members of the Appropriations Committee, I do have serious concerns about the safety of carrier operations at those facilities operating without the benefit of air traffic control towers.

As you may recall, the Pulliam Airport tower at Flagstaff, Arizona was temporarily closed in September of 1981, due to the shortage of trained and qualified controllers nationwide. Since the closure, the airport experienced one major incident which barely escaped major tragedy. A Skywest metroliner was departing the airport runway amidst dense fog. As the plane taxied down the runway, a Mitsubishi MU 2 was landing on the same runway from the other direction. Both planes collided, and although a seven foot section on the right wing of one of the aircraft was severed, no fire occurred and none of the 12 passengers were seriously injured.

Needless to say, I fear we may experience similar incidents which may end differently if the airport continues to provide service without the benefit of an operable traffic control tower. Because the airport is surrounded by mountainous terrain and the area experiences changing weather conditions, visual landings and take-offs are not always safe. While the airport does not provide scheduled air carrier operations, it is a heavily used facility for scheduled commuter airlines and air taxis. I feel the safety of passengers, whether 40 or over 100, is of critical importance and we must take the necessary steps to not jeopardize lives.

It is my hope that during your deliberations on developing criteria for the re-opening of air traffic control towers that were temporarily closed that you will include a provision allowing the Pulliam Tower to operate, even on a contracting-out basis. Any assistance you may be able to provide in the reopening of this tower, will be greatly appreciated by the users of the Flagstaff airport.

Sincerely,

Dennis

DENNIS DeCONCINI
United States Senator

STATEMENT OF HON. JENNINGS RANDOLPH, U.S. SENATOR FROM WEST VIRGINIA

Mr. Chairman, I appreciate the opportunity to submit this statement for the record on hearings on the Federal Aviation Administration's Planned Office and Facility Consolidations. You and the members of the Transportation Subcommittee are to be commended for undertaking this review.

My able colleague, Senator Byrd, has been provided a list of questions by me which I hope can be addressed during the hearings or submitted for responses in writing. I am deeply concerned over the proposed closings of four air traffic control towers in West Virginia. It is my understanding that these are the only towers being closed in the Eastern Region. Yet, I am advised that there may be as many as seven towers in the region with lower cost/benefit ratios. This is one of the questions that I hope will be raised during the hearing.

The communities in West Virginia where towers are being closed have substantial growth potential. Although one cannot put a precise figure on the value of airports and air service to economic and social development, there is no question that it has a beneficial impact. A vital part of any airport system is control of air traffic and safety. The lessening of these factors makes an airport and thus a community less attractive.

On a broader scale, it is my belief at this time that the wholesale closing of the towers across the country will cause a significant lessening of air safety. The FAA has not provided me with any information to alleviate this fear. I support automation. Cost saving is a worthy goal. But these objectives should not override safety considerations. That is what I currently believe is happening under the current FAA plan.

STATEMENT OF HON. MALCOM WALLOP AND HON. ALAN K. SIMPSON, U.S. SENATORS FROM WYOMING

Mr. Chairman, we do appreciate this opportunity to express the great interest in the operation of the six Flight Service Stations in our State of Wyoming -- and share our concern that no major reduction of service be permitted until automated flight service station replacement service is available and operational.

Mr. Chairman, the State of Wyoming is extremely dependent on air transportation. Its relatively small population and its large geographic area produce a very high ratio of aircraft, airports and pilots per capita. We rank third in the nation, after Alaska and Nevada, in the number of airmen (and airwomen!) and aircraft per 1000 residents.

Another fact which must be considered in any analysis of flight service station operations is Wyoming's swiftly changing -- and often violent -- weather and the great distances between weather reporting stations in this state which lies astride the Continental Divide. Squall lines can literally form and dissipate without ever being officially recorded by the weather service or even incorporated in the area forecast. That reference is not an indictment of the weather service. Yet it does demonstrate that the local Flight Service Station personnel, who understand local weather variations and unusual characteristics -- and often learn of them from a variety of sources, including aircraft in flight -- do provide a most valuable service to the aviation community. Even if basic weather information were available from more distant locations, we believe it would be wholly irresponsible to terminate local Flight Service operations before we are assured that a full, permanent and demonstrated service is available in order to avoid any break or reduction in the quality of the present services available to pilots.

We express these concerns, Mr. Chairman, because there are signs that FAA "planners" have become increasingly disinterested and disengaged in the welfare of Wyoming aviation interests -- all apparently in the name of "economy". A case in point is the FAA's persistent and seemingly obsessive determination to vastly reduce the operation of the Casper Flight Standards District Office (FSDO)

and to relocate most of the services that are now being provided in other states. That move, which we will strongly oppose in every forum available to us, will force many air operators to travel great distances for the obtaining of certifications and the other services provided by the FSDO -- or it will simply encourage them to operate in violation of Federal Air Regulations. It is a move that will not withstand a close examination on the grounds of finance or, even more importantly, common sense. And it is the same type of thinking at the FAA that leads to the apparent determination that if an aviator is from a small state or is located in a remote location, or if he operates in an area of low population density, then he is a low priority item -- and the basic requirements expected of him and the services extended to him all in the name of "safety" are somehow less important and our commitment to him and to safety is somehow less important. Never mind that that same pilot may next fly his aircraft over Cheyenne -- or LAX (Los Angeles).

Mr. Chairman, we would earnestly request that the committee formally object to these proposed reductions in FAA Services as anticipated in Public Law 98-78.

STATEMENT OF HARRY J. DUKE, JR., PRESIDENT AND EXECUTIVE DIRECTOR, NATIONAL ASSOCIATION OF AIR TRAFFIC SPECIALISTS

Mr. Chairman and distinguished members of this Subcommittee, I am pleased that you have provided me with the opportunity to express my thoughts and opinions on the report required by Section 319 of the 1984 Transportation Appropriation Act (P.L. 98-78).

The flight service system is an integral part of the air traffic control system and flight service missions are set forth on page IX of the System Effectiveness and Efficiency volume. There are about 317 flight service stations throughout the United States. The personnel who staff the air traffic control system are called:

Air Traffic Control Specialist (Station)
Air Traffic Control Specialist (Terminal)
Air Traffic Control Specialist (Center).

We note in the mission statement set forth in the above referenced volume that a new element has been added to the flight service system:

". . . and advise Customs and Immigration of trans-border flights."

This has to do with drug and narcotics interdiction and plays an ever increasing role in the flight service system and further increases the work load of an already overburdened work force.

A glaring omission in the mission statement is the "General Aviation Reservation program" which was imposed when the PATCO union went on strike and which is still in effect.

We have no objections to expanding the mission of the flight service system but when such action is taken we believe that capability in equipment and personnel must be provided. We infer that the Federal Aviation Administration does not hold with this view since they are currently decreasing rather than increasing capability.

We have reviewed both volumes of this report carefully and we do find that it reveals many of the FAA's closely guarded "secrets" which have been previously withheld from the Congress

and the general public. It is interesting to note that statutory language was required to elicit this information.

We also have carefully studied the provisions of Section 319 and find that it requires cost effectiveness data, i.e. ", . . . Including cost-effectiveness and other relevant data, for all facility closures or consolidations over the next three years."

We do not believe that the listing of a dollar amount of savings complies with the statutory requirement of providing cost effectiveness data. Cost effectiveness data are data which can be analyzed. What we have in this report is merely an unsupported listing of savings as determined by the FAA.

For example, in the "Consolidation Activity" volume on page 'Section A', the FAA shows FSS savings of 78 positions between now and 1993 with cost effectiveness in 1983 dollars of $93,970,000. Each of these positions is classified at about $25,000.00 annually for a total dollar amount of $1,950,000 per year or $19,500,000 for ten years. We are indeed curious as to how the remaining $74,470,000 in savings was achieved.

We certainly are not the first to question the cost effectiveness procedures employed by the Federal Aviation Administration. A few excerpts from a GAO report are very germane:

"GAO report "FAA's Plan to Improve the Air Traffic Control System: A step in the Right Direction but Improvements and Better Coordination are Needed" (GAO/AFMD-83-34 February 16, 1983):

> "We believe previous cost-benefit analyses were deficient, in part because they did not use sensitivity analysis; that is, they did not consider a range of factors. In addition, our detailed analysis and subsequent recalculation of costs and benefits disclosed some highly questionable adjustments without which the project would not have been justified by FAA's analysis (page 9).
>
> "Assess and resolve promptly the identified critical communication issues. This should include: Reassessment of costs and benefits to flight service station automation project users so that a decision can be made about implementing the program (page 10).
>
> "FAA should assess the degree of acceptance amoung general aviation pilots of the automated flight service it plans to offer. The success of the program and its cost impact on the Government depend on such acceptance.
>
> "A comparison of our recalculated costs for both the present system and the flight service station system shows that the latter offers no cost advantage to the Government (page 61).

> "We recommend that the Secretary of Transportation direct the FAA Administrator to: Assess and resolve promptly the identified critical communication issues. This should include: Reassessment of costs and benefits to flight service station automation project users so that a decision can be made about implementing the program (page 61)."

Moreover, the United States General Accounting Office has investigated a number of site selections and has found that the FAA has erred in selecting the most cost effective sites, a publicly announced objective. The latest example is contained in GAO letter of October 3, 1983 to Administrator Helms, a copy of which is attached as enclosure (1) to this statement.

Accordingly, we hold that the FAA has failed to comply with the letter and the intent of the first proviso of Section 319 in that cost effectiveness data has not been included in this statutorily required report.

On page 6 of the "Effectiveness and Efficiency" volume, the FAA states: "Twenty-nine FSSs will be consolidated in FY 1984. Three of these consolidation actions already under way are not shown in this plan." We know of no reasons why the three unnamed facilities were not included in this plan and it is our view that Section 319 covers all FAA facilities, makes no exceptions, and that funds used for any closures and consolidations outside the provisions of Section 319 is a direct violation of law.

On page 4 of the same volume, the FAA states that the program was approved by the Congress in 1980 and yet we note in Senate Report No. 97-516 on the Supplemental Appropriations Bill, 1982, the Congress was careful to point out:

> "The Committee commends the Federal Aviation Administration for developing the national airspace system plan, which represents a substantial improvement in FAA's overall planning and systems design. However, the Office of Technology Assessment and the General Accounting Office have each pointed out several deficiencies in the plan, and more work clearly needs to be done before the Congress can commit itself to the proposal. Thus the Committee concurs with the House that this supplemental funding should not be construed as an endorsement of the plan or as a commitment to any future funding."

The FAA boasts that certain in-depth training will be provided to meet some of the problems brought about by these consolidations:

> "Intimate geographic knowledge, such as familiarity with mountainous terrain, which today's specialists use to brief pilots and assist those who are lost, will be imparted to specialists at the new facilities through in-depth training."

We agree that in-depth training will be required since the FAA proposes to abandon stations where intimate geographic knowledge is required covering hundreds of square miles to new locations where intimate geographic knowledge is required covering hundreds of thousands of square miles.

The National Transportation Safety Board also takes a dim view of FAA's training efforts (NTSB/SIR-83-01 of May 12, 1983 - pp. 46):

> "Another reason for low morale is the fear of further personnel reductions when the FSS's are consolidated. Many specialists interviewed stated that they would be eligible for retirement and would retire instead of moving to another location, especially considering current economic conditions. In an FAA 10-year projection, 1,551 specialists would be eligible for optimal retirement, and 2,488 other specialists could elect to leave the system rather than make the move associated with relocation as a result of facility consolidation. The possible total of the two categories could be as high as 4,039. Of course, many might not retire or otherwise depart; however, the possibility of such a large-scale retirement exists, *and yet the FAA has no plans for increasing training of FSS specialists to replace the potential retirees and others who leave.*" (Italics added)

One of the major problems we have experienced in the modernization of the flight service system is the frequent changes in position and policy of the Federal Aviation Administration.

At the outset, the FAA position was to demonstrate the quality of service provided by the new modern station and then consolidate the old stations in that flight plan area, while at the same time providing equal or better service to aviation. That position was changed by the Secretary in his letter of January 31, 1983 to Congressman Taylor:

> "Although our original FSS modernization plan did include the establishment of automated stations prior to consolidation, the need to reduce the cost of Government makes it prudent to avail ourselves of the opportunity to consolidate FSS's as soon as feasible."

Such action by the Secretary reduces safety to a relative priority no better than second, a situation unheard of in aviation circles.

Further, in the 1984 Budget Request, the FAA requested funding

to close seventy-five flight service stations along with five stations for which funds had already been provided. And yet in this statutorily required report of October 1, 1983, the FAA requests authority to close only twenty-nine stations in FY 1984! Such vacillation causes confusion and trauma in the minds of the general public and suggests a similar situation exists within the leadership circles of the FAA.

We are fortunate to have the opportunity to briefly review "A Report on the Flight Service Station Program" submitted by the Secretary of Transportation to the United States Congress pursuant to Senate Report No. 98-179. The Secretary makes six points in the report which are outlined in her covering letter of November 2, 1983 to you, Mr. Chairman, and to others as well. Omitted in the distribution of this report were House Chairmen Whitten and Howard, Members with responsibility, interest and jurisdiction.

Each of the Secretary's main points are addressed as follows:

> "The President's Private Sector Survey on Cost Control is clearly supportive of FAA's programs of FSS consolidation. If anything, it would accelerate the consolidation schedule."

As far as we can determine, this survey has no official status since it has not been approved or adopted by the President or by any official in Government. In fact, on November 8, 1983, Chairman Grace said that he intends to consolidate the findings into a final report to the President before the end of the year.

We defend the right of Chairman Grace to express his personal opinions on any subject he chooses, including aviation. However, we can find no evidence that he is qualified by experience, education or otherwise to authoritatively address aviation matters.

> "Cost savings resulting from implementation of the FAA consolidation/automation program are clearly indicated by an evaluation of a series of sensitivity analyses (considering the rate of growth in demand; staffing growth to meet increased demand for services; and the level of user acceptance of the automated system)."

Cost savings, as determined by the FAA, have been previously addressed in this statement (and by others) and pertain to this item.

> "The FAA is following a widespread trend toward automation of service delivery systems. All available information concerning the introduction of similar automated service systems clearly shows that a high degree of acceptance and use of automated flight services will in fact occur among general aviation pilots."

This item emphasizes the fact that the FAA clearly does not know even approximately the degree of acceptance among general aviation pilots, or scheduled air carriers for that matter. Senate Report No. 98-179 (page 30) points to the fact that success of the program depends on such acceptance.

To argue that public acceptance of personal computers and automatic bank machines are reasons to believe that automatic flight service stations will be accepted by pilots is indeed specious. The former deal with entertainment, household affairs and financial matters, while the latter deals with life-saving actions and accident prevention.

It is also fair to point out that two major producers of personal computers have abandoned the market - one by bankruptcy (Osborne) and the other by major decision (Texas Instruments after a loss of one quarter billion dollars).

Many automatic devices are accepted by the public because of convenience, i.e. geographic location. Examples are cigarette machines and candy/chewing gum machines. In these cases a vendor would be more preferable since these simple machines often fail to deliver a product after required funds have been tendered.

> "The record is clear and unequivocal: the aviation system today is as safe or safer than it was prior to the illegal controller strike of August 1981."

We agree completely with the Secretary's position and this is the most important reason for maintaining the system as it is until something better is operational. To dismantle the existing system before a modern system is installed would deny the Secretary the privilege of making such a glowing statement. The first modern station will not be operational until August 1984 - and this could be further delayed as has been the pattern of the past.

Today the Secretary can make this statement because scores and scores of flight service air traffic control specialists were

transferred to centers and towers at the time of the PATCO strike. Those remaining worked long hours and successfully implemented the General Aviation Reservation plan, along with many other additional duties. Air traffic control specialists at flight service stations did not strike.

> "Providers of Government services cannot automatically staff to meet peak anticipated demand. Ultimately, this decision should and must be made by those who pay for these services. Users of Government services must trade off increased potential delays for lower costs."

This Secretarial position suggests a lower level of services in the future than those services being provided as of current date. In our view, this position is contrary to the requirements of Section 528(c) Title V of the Tax Equity and Fiscal Responsibility Act of 1982, hereinafter quoted for convenience:

> *"(c) The Secretary may close not more than five existing flight service stations before October 1, 1983. After October 1, 1983, the Secretary may close additional flight service stations, but only if the service provided to airmen after the closure of such station with respect to information relating to temperature, dewpoint, barometric pressure, ceiling, visibility, and wind direction and velocity for the area served by such station is as good or better than the service provided when the station was open and such service is provided either by mechanical device or by contract with another party."*

> "Low productivity facilities exist because the demand for services is low at those facilities, not because FAA employees are non-productive. By combining and automating facilities and directing demand to these consolidated facilities, the same number of employees can provide a greater amount of service than the sum of the individual facilities prior to consolidation."

We agree that air traffic control specialists at flight service stations are high-productive employees and, in fact, have been highly praised by the FAA Administrator in several Congressional hearings.

The second sentence in this Secretarial position is in our view an unknown factor, as yet has not been proved, and is in fact what all of the discussion is about.

More importantly, the Secretary appears to ignore the language of the law - "is as good as or better" - and only claims a "greater amount of service".

In conclusion, Mr. Chairman and Members of the Committee, in accordance with the language of Public Law 98-78 (the Department

of Transportation Appropriation Act), I respectfully request that this committee, which had the wisdom to call this hearing, formally question in writing the Federal Aviation Administration on all flight service station closure activities. I make this request as I understand that this will prevent any closures before April 15, 1984, in order to allow for the timely conduct of any necessary and additional Congressional hearings.

Thank you, Mr. Chairman.

LETTER FROM STEPHEN L. KELETI, U.S. GENERAL ACCOUNTING OFFICE

OCT 3 1983

The Honorable J. Lynn Helms
Administrator, Federal Aviation
Administration

Dear Mr. Helms:

We appreciate your prompt response to our June 21, 1983, letter which outlined our concerns with certain aspects of FAA's flight service station (FSS) automation program. We are still reviewing FAA's August 17, 1983, guidance to its regional offices regarding FSS site selections; particularly whether it provides sufficient instructions on how to accurately compute distances among locations and when to use applicable inter- and intra-state rates in determining communications costs.

As our work continues, we have another matter which we believe needs to be brought to your attention because of FAA's desire to obtain FSSs at the lowest overall life-cycle cost. It involves FAA selecting an automated FSS location for the Georgia flight plan area which, based on a reevaluation, is not the most cost-effective site and the potential that similar situations have occurred in other selections. Details on the Georgia situation are as follows.

FAA's Southern Region evaluated proposals submitted by several communities for the Georgia flight plan area in September 1982. The proposals from Macon and Atlanta (Fulton County) were the two most competitive, and the regional office computed annual communication costs for the two sites at $445,656 and $489,648, respectively.

In January 1983, FAA headquarters determined that Macon would be the most cost-effective location for the new automated FSS and a lease with Macon was signed in March 1983. The following is a summary of FAA's life-cycle costs for Macon and Atlanta.

Evaluation Factor	Macon[b]	Atlanta[b]
Building lease, relocation, and other costs[a]	$2,144,970	$1,765,770
Communications	4,123,748	4,530,816
Total	$6,268,725	$6,296,593

[a]Includes general expenses, interim lease costs, utilities, janitorial services and alterations.

[b]Twenty-year life-cycle costs using a 7 percent discount rate. Figures do not add due to rounding.

To compute communications costs, the regional office obtained mileages between various locations from a road map, multiplied them by an average rate per mile provided for planning purposes by the telephone company, and added an estimated cost for each circuit required. Regional officials told us they used this method for the following reasons:

--It was the method they had used for the past several years for budget and planning purposes for other projects.

--Georgia was the first automated FSS flight plan area evaluation done by the region, and they had no prior experience with the effect communications costs can have on total life-cycle costs.

--There was only about 90 days allowed for the entire solicitation and evaluation process (the region was not aware of the overall FSS program schedule slippage at the time).

While the Georgia case was at headquarters for a decision, the region in November 1982 began using another, more precise method of estimating communications costs in its subsequent evaluations. The region did this because of its concern about the significant effect communications costs have on total life-cycle costs. This method involves using a computer program to calculate distances from the latitude and longitude of various locations and applying interstate telephone company tariffs to estimate costs. At our request, in August 1983, the region recomputed communications costs for Macon and Atlanta, Georgia, using this second method. Annual communication costs for the two sites changed from $445,656 to $378,156 for Macon, and from $489,648 to $336,736 for Atlanta. The revised total life-cycle costs are as follows:

Evaluation Factor	Macon[b]	Atlanta[b]
Building lease, relocation, and other costs[a]	$2,144,970	$1,765,770
Communications Costs	3,499,157	3,573,549
Total	$5,644,127	$5,344,319

[a]Includes general expenses, interim lease costs, utilities, janitorial services and alterations.

[b]Twenty-year life-cycle costs using a 7 percent discount rate.

Thus, the change in methodology makes Atlanta the more cost-effective location. Moreover, the $300,000 differences in favor of Atlanta in this analysis is significantly greater than the $28,000 difference favoring Macon in the earlier analysis.

According to Southern Region officials the city of Macon has hired an architect and is in the process of drawing up plans for the automated FSS building and FAA plans to occupy it in March 1984.

In our June 21, 1983, letter we advised you of a similar situation in the Southwestern Pennsylvania flight plan area, where a subsequent analysis also indicated that the location chosen was not the most cost-effective.

On September 20, 1983, we asked the FSS program manager what, if anything, FAA plans to do in instances, such as those in Georgia and Southwestern Pennsylvania, where a reevaluation shows that another location is a more cost-effective selection. He advised us that FAA does not plan to change past selections because FAA believes the decisions were made with the best available data.

As you know, GAO has received several Congressional requests for site specific reviews of the FSS selections as well as the entire selection process. We are preparing to brief the requestors and would therefore like to have FAA's official position and rationale as to whether FAA is or will consider canceling existing lease agreements, and award leases to less-costly locations in those cases where reevaluations indicate that the original sites chosen were not the most cost-effective.

Communications costs are clearly a significant factor. In that regard we have found what appears to be an excellent source of data on telephone company tariff schedules, rate centers, connection charges, and distance calculations. This data is available from the Defense Commercial Communications Office (DCCO) which we believe would allow FAA to more accurately determine communications costs. We understand this source has not been used by FAA. On September 27, 1983, we advised the program manager of the availability of the data from DCCO.

FAA may wish to consider (1) reviewing its selections made prior to the August 17, 1983, guidance to include making necessary recomputations of cost elements, giving consideration to communications data available from DCCO and (2) using communications data from DCCO in future evaluations.

We would appreciate an early response. If you would like additional information regarding these matters, please let us know.

Sincerely yours,

Stephen L. Katale

for Oliver W. Krueger
Associate Director

STATEMENT OF JOHN H. WINANT, PRESIDENT, NATIONAL BUSINESS AIRCRAFT ASSOCIATION, INC.

We sincerely appreciate this opportunity to submit a statement for the record concerning the plans of the Federal Aviation Administration (FAA) to modernize and consolidate the many services provided by the nationwide network of Flight Service Stations (FSS). The National Business Aircraft Association (NBAA) represents over 2,700 companies which operate more than 5,000 aircraft in order to facilitate the normal conduct of their day-to-day business. NBAA members are highly dependent upon Flight Service Stations for flight information.

Mr. Chairman, we will confine our statement to the modernization aspect of the FAA plan, as presented in the October 1, 1983, document, "Planned Office and Facility Consolidations". Modernization and consolidation are two separate problems, although there is an obvious overlap. The exact location of the Automated Flight Service Stations (AFSS) is not critical, so long as the FAA adheres to its stated goal of providing "equal or better" service. Throughout the many years that modernization and consolidation programs have been considered, NBAA has maintained a solid position of support regarding these concepts. Further, we feel modernization is long overdue. Implementation, however, will require a great deal of cooperation from the FAA, the system users and the Congress.

As the FAA begins to implement this program, we have several points to make regarding our concerns and present them to you so that you may use them as guidelines to monitor FAA performance. These points are:

- DEFINING "EQUAL OR BETTER" SERVICE
- INTERIM OPERATION OF THE FSS SYSTEM
- WEATHER OBSERVATIONS AT LOCATIONS WHERE FACILITIES HAVE BEEN CLOSED
- REGULATORY REQUIREMENTS REGARDING PRE-FLIGHT BRIEFINGS
- IMPLEMENTATION DELAYS
- AUTOMATED FLIGHT-PLAN FILING
- COST ANALYSES
- CURRENT AND FUTURE TECHNOLOGY

I. DEFINING "EQUAL OR BETTER" SERVICE

NBAA fully supports the goal of "equal or better" service to aviation, as stated by the FAA. "Equal or better" should not mean preservation of the status quo, however. We note that others decry the expected problems in obtaining a walk-in, face-to-face briefing as consolidation is implemented.

Walk-in pre-flight briefings are used by only 5% of the pilots receiving a briefing. The vast majority of briefings are conducted by telephone. A walk-in pilot can examine various weather charts and maps in person, rather than have these data explained over a telephone, where interpretation and visualization may be less precise. An obvious solution to this dilemma, and one which is included in the FAA's Model 2 phase of modernization, is to have this information presented on a computer terminal or facsimile printer. We feel such a solution is an improvement over the current situation and goes a long way toward alleviating the concerns expressed by various individuals.

II. INTERIM OPERATION OF THE FSS SYSTEM

We note what might be termed a "two phase" consolidation of FSSs. This involves the closing of one or more low-activity FSSs and "remoting", or transferring telephone and radio communications, to a nearby FSS well before the area's AFSS is operational. The remaining FSS would be closed as the AFSS becomes operational.

This procedure would seem to be a normal one, given the logistics of closing these facilities and installing the new equipment. However, NBAA is concerned that equal service may not be available in some areas, especially outlying ones. This phase of consolidation merits special attention on the part of Congress and the system users to ensure equal or better service during the transition.

III. WEATHER OBSERVATIONS AT LOCATIONS WHERE FACILITIES HAVE BEEN CLOSED

No facility should be closed until adequate measures have been taken to ensure the proper observation and dissemination of weather data. Proper measures would include full certification of automatic weather observation systems (AWOS) and, where necessary, augmentation with contract weather observers.

IV. REGULATORY REQUIREMENTS REGARDING PRE-FLIGHT BRIEFINGS

14 CFR 91.5 requires that a pilot "familiarize himself with all available information concerning that flight". This information includes "weather reports and forecasts" and other operational considerations. Generally, in order to not be found in non-compliance with this regulation, a pilot will contact an FSS. With automated briefing capabilities a pilot will be able to receive a briefing of equal or better quality without ever speaking with an FSS specialist. This is especially true considering the development of automated means by which to file a flight plan. FAA must develop necessary regulatory measures applicable to automated systems.

V. IMPLEMENTATION DELAYS

The FAA plan is one based on progression toward the goal of an automated, modernized FSS system. Any delays encountered at one phase of the program will probably delay or perhaps even jeopardize the remaining phases. Equally obvious are the increased costs which would accrue if implementation is delayed. NBAA, in concert with the entire aviation community, deplored the reductions in planned funding effected by the FY84 Department of Transportation Appropriation. We would stress that the cost-effectiveness of the FAA plan will be adversely affected, if not already, by further delays and/or reductions in projected funding.

Consequently, we strongly urge you and your committee to advocate to the Congress full and appropriate funding from the user-generated revenues dedicated to this purpose.

VI. AUTOMATED FLIGHT-PLAN FILING

NBAA recommends that individuals with the capability and resources have direct access to ARTCC computers for the purpose of filing flight plans. The obvious and legitimate concerns FAA may have with such a procedure can be mitigated and its implementation would result in a huge savings of specialists' time.

VII. COST ANALYSES

The cost data presented by FAA are inadequate and do not allow detailed analysis. While we are quite certain the improvements planned are worthwhile,

it is not at all clear how much they will cost. The FAA has the duty to the users, not to mention the Congress, to detail costs to be paid by system users. We should be provided the opportunity to examine more detailed data.

VIII. CURRENT AND FUTURE TECHNOLOGY

The technology FAA plans to develop and have in place by the end of the decade is, for the most part available now, off-the-shelf, from a variety of vendors. This technology includes such advances as high-speed telecommunications, computerized graphics, automated flight plan development and full-service weather data. Indeed, some services available today would be of enormous benefit to existing FSSs if only they were placed in service.

We urge the Congress and the FAA to examine the suitability and determine the cost savings which would be derived by using existing software and equipment rather than developing its own.

CONCLUSION

In closing, we wish to thank the Subcommittee for allowing us the opportunity to present this statement. NBAA has strongly supported this program over the years and continues to do so. The comments presented herewith should not be construed as representing opposition to the FAA's program. To the contrary, its implementation is sorely needed, and we ask that Congress will see fit to direct FAA to proceed forthwith. We stand ready to assist you on this and other endeavors.

LETTER FROM W. LAWRENCE GRAVES, VICE PRESIDENT, AIRCRAFT OWNERS AND PILOTS ASSOCIATION

November 10, 1983

Honorable Mark Andrews, Chairman
Subcommittee on Transportation
Committee on Appropriations
Senate Office Building
Washington, D. C. 20510

Dear Mr. Chairman:

This letter is to follow-up your hearing of November 1 regarding the FAA's plan to close flight service stations.

The following excerpts from the House subcommittee's hearing record trace the transition of the FAA explanation of its FSS proposal over the years. Watch the FAA move from no closings before automation in 1981 to closing low activity stations for economic reasons in 1982 to closing in order to staff automated stations in 1983.

1981

Mr. Benjamin. The final question on consolidation, have the users agreed to consolidate?

Mr. Van Vuren. The users have agreed, and it was for more agreement than I ever remember the industry ever coming to. They've agreed with the notion we've presented to them. The notion was that we will install the automated flight service station. We will prove to the users that the service that they receive from that facility is indeed superior to that which they are currently receiving, and then the next step in that process would be to locally develop with the users, a consolidation plan. And they have agreed to that notion. I don't think we've had any agreement that anybody's going to close a flight service station yet.

Mr. Benjamin. Wouldn't that be inherent in the notion.

Mr. Van Vuren. Yes, once we show them that the service is better. [emphasis added]

1982

Mr. Benjamin. . . . you have stated that the existing stations would not be closed until after the automated stations are on line. Specifically, on page 3 of that addendum, you state, and I quote: "After each automated Flight Service Station is in operation, we will ascertain that the quality of service provided is equal or superior to the service available from the existing stations in the area. Only then will we begin to consolidate the surrounding Flight Service Stations into the automated facility."

Mr. Helms. . . . In an effort to more properly utilize the funds we have and take advantage of productivity, those very low activity stations, well below the average of 13,000 [annual flight services], are such that we do not need them. We can remote them and fulfill all the requirements that are necessary. [emphasis added]

Mr. Coughlin. As we understand it, that same master plan specifies that the FAA will not consolidate any surrounding FSSs into a new automated facility until the automated facility is up and running and you ascertain that the quality of service is equal to or superior to the existing stations. Do you plan to honor this commitment?

Mr. Van Vuren. Yes, sir, that's basically correct. However, the Administrator mentioned yesterday, some consolidations are necessary prior to full automation to support the transition to the new system. The other facilities will remain in operation until we have determined that the level of service is equal to or better than that available prior to the new system. [emphasis added]

The most recent variation of the concept is announced at the recent report submitted to your subcommittee. The new justification runs something like, "We have leased space to house the automated flight service stations and we would like to move into that space even though the automated stations will not be available."

We continue to believe the FAA should be required to follow its original plan of automating before closing.

We believe the FAA promises of future FSS services did not square with its past performance in maintaining FSS services. To elaborate on that, the FAA permanently closed two flight service stations in fiscal year 1983 and did not provide any weather observations whatsoever at those locations -- contrary to the requirements of existing law.

In addition, the FAA part-timed at least seven stations from full-time status. No replacement weather observations were provided at any location. The FAA reduced hours at least five other locations without providing weather observations. There may have been other instances we do not know about, but these actions also were contrary to existing law.

With regard to the Boston closing, which is the obvious contradiction to the FAA's equal service claims, the anomalies letter you received claims the FSS building in Boston is to be demolished. We believe this is stretching the truth quite substantially. Actually, both the FAA and the National Weather Service intend to continue occupying the building -- for at least ten years in the case of NWS.

Also, three flight service stations we expected to see closed in fiscal year 1984 -- Yuma, Arizona; Key West, Florida and Toledo, Washington -- were not mentioned in the FAA's three year facility closing plan. It is our interpretation of P.L. 98-78 that these three stations cannot now be closed at least until 1987. We hope that in responding to the closures report that the subcommittee will agree with our interpretation. We would certainly like to keep them open and operating.

Finally, after the hearing, the FAA submitted a report to the Committee on its flight service station plans. There is not much new in the report and we are fully in agreement with almost everything in it, but we would like to call your attention specifically to a few of the points the FAA makes.

1. The forecast of flight services in 1985, 1990 and 1993 is highly optimistic, if not unreasonable, even though this

year's forecast for 1990 is about the same level as last year's forecast was for 1985. As these estimates decline, the so-called cost savings decline.

2. Despite the comment on page I-4, a Model I FSS system is not an automated one.

3. In its "assumptions" the FAA estimates a ten percent increase in FSS costs annually. Between fiscal years 1981 and 1982 the cost lowered seven percent.

The FAA assumes an increase of 183 people per each million increase in flight services. Nothing in the recent past provides a basis for such an assumption. We do not expect the FAA to request any staffing increases from the subcommittee under any future scenario nor would we support any increase.

5. We agree with the FAA that many automated tellers are being installed by banks all over the country. We note, however, that financial institutions are not closing their branch offices because banks recognize that human tellers can provide a wider range of services than automated tellers do.

6. The chart on page V-2 of the report is used to show that aviation grows continually safer. We agree, but note that 50 percent of all aviation accidents have a weather-related cause and that we should not reduce in any way the flight service station system which is designed to minimize weather-related accidents.

7. Page V-3 lists "the two ways" to provide flight service station services. The "two ways" are the FAA's way and a way which makes no sense whatsoever. Obviously there are any number of alternatives more effective and efficient than these two -- which we would be glad to submit formally to you if the closings are postponed so a more thorough evaluation of the future of flight service stations can be completed.

We thank you for your attention to this issue and urge the subcommittee to invoke its authority to delay the proposed closings.

Sincerely,

W. Lawrence Graves
Vice President

STATEMENT OF JUANITA D. BLUMBERG, VICE PRESIDENT, CENTRAL FLORIDA GENERAL AVIATION ASSOCIATION

Chairman Andrews and Members of the Committee:

Our organization represents the interests of 289 general aviation pilots - users of the FAA Flight Service System - and is strongly opposed to the FAA's Consolidation plan.

Our opposition is based on two main points:

1. This plan will severely impact aviation safety.
2. This plan will not be cost effective.

Regarding safety: We now have a system that works. It does what it is supposed to do; it delivers service to more than 750,000 licensed pilots in order to promote safety and efficiency in aviation. CFGAA agrees that the existing system has problems - it needs modernizing and it should be more cost effective.

Administrator Helms, in testimony before the House Appropriations Sub-committee on Transportation (October 25) stated that the primary reason for selecting this plan over other alternatives is that, "Current demand is unsatisfied and is expected to increase significantly in the future." He correctly identified one of the major problems in the existing system. During periods of bad weather, areas of heavy aviation activity often experience delays in receiving weather briefings by telephone. Note that this is with current staffing levels, not with the 60% reduction planned by the FAA.

<u>The proposed plan will not solve this problem</u> - <u>it will make it worse</u>. Here's why. The FAA has ignored the human factor. The new system is designed to meet the needs of professional pilots and ignores the capability level of the average general aviation user. In it's desire to make use of expanding technology, the FAA intends to replace the best and most effective part of the system - the Flight Service Specialist - with voice activated, computer generated recordings.

Not only has the FAA dismissed out of hand those pilots desiring face-to-face, "in person" weather briefings, more importantly, they have ignored the critical need for "person to person" telephone briefings, where a pilot can ask questions and receive the assistance of a trained weather specialist when making critical "go" or "no go" decisions.

In the air, the need is even greater. When a pilot runs into bad weather enroute, he does not need another recorded briefing. What he needs is to talk with a specialist who is looking at a radar screen to advise him which way to go. Remember that more than half of all general aviation accidents are weather related. Does it make any kind of sense to reduce weather assistance?

Senators, in good weather either system will work well. In bad weather, the proposed plan will result in increased delays and decreased safety.

Here's how it will work. Under the proposed plan, pilots will receive a recorded weather briefing by telephone. If they need further information or assistance, the recording will refer them to another number where a Flight Service Specialist can be reached. CFGAA maintains that most general aviation pilots will require this further assistance and the specialist lines will be more jammed than they are today because there will be 60% fewer specialists and ever increasing numbers of pilots requiring their services.

Regarding cost effectiveness: Most of the savings anticipated by FAA are due to the large decrease in personnel. Those savings will quickly evaporate when it becomes evident that the system cannot meet the demand at these reduced staffing levels and additional personnel have to be hired and trained.

The FAA report to Congress uses as a basis for it's cost effectiveness figures, "one-time implementation costs," from which it subtracts personnel and FSS decommissioning savings. Has the FAA not heard of computer obsolescence? Or, maintenance? I see no figures for replacement or maintenance. For each

$1,000,000.00 FAA spends to install computer equipment, it could have a $40,000 a year Specialist for 25 years. The computer would be replaced roughly three times in that time while the specialist's usefullness would increase with job experience.

Mr. Helms will not be held accountable for the cost overruns - the taxpayer will. Mr. Helms will be long gone by the time this plan is fully operational and it's costly deficiencies recognized.

Senators, the American public is weary of expensive, bureaucratic boondoggles and "Golden Fleece Awards" which the Congress seems powerless to control or punish. This is an instance where the Congress should act at once to prevent the FAA from spending 500 million dollars to replace a system that works with one that won't.

CFGAA RECOMMENDATIONS *

1. FAA should close only those facilities which are underutilized because of low user demand.

2. FAA, to utilize new technology, should automate a sufficient network of FSS and use these facilities as "hub" stations, supporting smaller existing FSS.

3. Smaller FSS should be modernized as needed to improve productivity.

4. FAA should hire and train a sufficient number of FSS Specialists to ensure all FSS are appropriately staffed.

* With minor changes, these are recommendations made by AOPA, Aircraft Owners and Pilots Assn.

○